Analytical and Quality Control Report

William Little WTS P.O. Box 363 Building 126 3RD Floor WSMR, NM, 88002

Report Date: January 5, 2007

Work Order: 6121108

Project Name:

HELSTF Groundwater Samples

Project Number: 7

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

| | | | Date | Time | Date |
|--------|------------------------|--------|------------|-------|------------|
| Sample | Description | Matrix | Taken | Taken | Received |
| 111247 | HLSF-0085-HMW-024-1206 | water | 2006-12-07 | 15:06 | 2006-12-08 |
| 111248 | HLSF-0085-TB-788-1206 | water | 2006-12-07 | 15:06 | 2006-12-08 |

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

This report consists of a total of 43 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

Dr. Blair Leftwich, Director

Michael abel

Standard Flags

 $\,B\,$ - $\,$ The sample contains less than ten times the concentration found in the method blank.

Work Order: 6121108 **HELSTF** Groundwater Samples

Analytical Report

Sample: 111247 - HLSF-0085-HMW-024-1206

Analysis: Ag, Dissolved QC Batch: 32921

Analytical Method:

S 6010B 2006-12-18

Prep Method: S 3005A Analyzed By:

Prep Batch: 28533

7

Date Analyzed: Sample Preparation:

2006-12-13

Prepared By:

RR TS

Page Number: 2 of 43

RL

13 T

Parameter Result Units Dilution RL Flag Dissolved Silver < 0.00200 mg/L 0.00200

Sample: 111247 - HLSF-0085-HMW-024-1206

Analysis: Alkalinity QC Batch: 32918

28627

Prep Batch:

Analytical Method: SM 2320B Date Analyzed: 2006-12-15 Sample Preparation: 2006-12-15

Prep Method: N/A Analyzed By: JG

Prepared By: JR

| | | KL | | | |
|------------------------|------|--------|---------------|----------|------|
| Parameter | Flag | Result | Units | Dilution | RL |
| Hydroxide Alkalinity | | <1.00 | mg/L as CaCo3 | İ | 1.00 |
| Carbonate Alkalinity | | < 1.00 | mg/L as CaCo3 | 1 | 1.00 |
| Bicarbonate Alkalinity | | 80.0 | mg/L as CaCo3 | 1 | 4.00 |
| Total Alkalinity | | 80.0 | mg/L as CaCo3 | 1 | 4.00 |

Sample: 111247 - HLSF-0085-HMW-024-1206

Analysis: Ammonia QC Batch: 32703 Prep Batch: 28457

Ammonia-N

Analytical Method: SM 4500-NH3 B,C Date Analyzed: 2006-12-11 Sample Preparation: 2006-12-11

<1.00

Prep Method: N/A Analyzed By: SM Prepared By: SM

Result Parameter Flag

RL

Units

mg/L

Dilution RL 1.00

Sample: 111247 - HLSF-0085-HMW-024-1206

Analysis: As, Dissolved QC Batch: 32921 Prep Batch: 28533

Analytical Method: S 6010B Date Analyzed: 2006-12-18 Sample Preparation: 2006-12-13

Prep Method: S 3005A Analyzed By: RR Prepared By: TS

RLParameter Flag Result Units Dilution RL < 0.00500 0.00500 Dissolved Arsenic mg/L

Work Order: 6121108 **HELSTF** Groundwater Samples Page Number: 3 of 43

Sample: 111247 - HLSF-0085-HMW-024-1206

Analysis: QC Batch:

7

Ba, Dissolved

32921 Prep Batch: 28533 Analytical Method: Date Analyzed:

S 6010B 2006-12-18 Sample Preparation: 2006-12-13 Prep Method: Analyzed By:

S 3005A RR

Prepared By:

TS

RL

Parameter Dissolved Barium Result 0.0100

Flag

Units mg/L Dilution

RL0.0100

Sample: 111247 - HLSF-0085-HMW-024-1206

Analysis: QC Batch:

Bromide

Prep Batch:

Bromide (IC) 33039

28716

Analytical Method: Date Analyzed:

Sample Preparation:

E 300.0 2006-12-08 2006-12-08 Prep Method: N/A Analyzed By:

JR Prepared By: JR

Parameter

Flag

RL

Result Units <1.00 mg/L

Dilution

5

RL 0.200

Sample: 111247 - HLSF-0085-HMW-024-1206

Analysis: QC Batch: Cd, Dissolved

32921 Prep Batch: 28533 Analytical Method: Date Analyzed:

S 6010B 2006-12-18 Sample Preparation: 2006-12-13 Prep Method: S 3005A Analyzed By:

RR Prepared By:

TS

RL

Parameter Dissolved Cadmium

Result < 0.00100 Units mg/L Dilution

RL

0.00100

Sample: 111247 - HLSF-0085-HMW-024-1206

Analysis: OC Batch: Conductivity 32699

Analytical Method: Date Analyzed:

SM 2510B 2006-12-08 Prep Method: N/A Analyzed By:

DR

Prep Batch:

Specific Conductance

28448

RL

Sample Preparation:

Result

2006-12-08

Prepared By:

JR

Parameter Flag

Flag

18100

Units μMHOS/cm

Dilution

RL

0.00

Sample: 111247 - HLSF-0085-HMW-024-1206

Analysis: QC Batch:

Prep Batch:

Cr, Dissolved 32921

28533

Analytical Method: Date Analyzed:

Sample Preparation:

S 6010B 2006-12-18 2006-12-13 Prep Method: Analyzed By: Prepared By:

S 3005A RR TS

RL

Parameter Flag Result Units Dilution RL< 0.00500 mg/L 0.00500 Dissolved Chromium

Work Order: 6121108 **HELSTF** Groundwater Samples Page Number: 4 of 43

Sample: 111247 - HLSF-0085-HMW-024-1206

Analysis:

Cu, Dissolved

QC Batch: 32921 Prep Batch: 28533 Analytical Method:

Date Analyzed: Sample Preparation:

S 6010B 2006-12-18 2006-12-13

Prep Method:

S 3005A Analyzed By: RR Prepared By: TS

RL

Parameter Dissolved Copper

Result Flag < 0.0125

Units mg/L Dilution

RL0.0125

Sample: 111247 - HLSF-0085-HMW-024-1206

Analysis: OC Batch:

Cu, Total 32745 28447

Analytical Method: Date Analyzed:

S 6010B 2006-12-12 Sample Preparation: 2006-12-11 Prep Method: Analyzed By:

Prepared By:

S 3010A RR

TS

RL

Parameter Total Copper

Prep Batch:

Flag

Result < 0.00500 Units

Dilution

RL0.00500

mg/L

Sample: 111247 - HLSF-0085-HMW-024-1206

Analysis: OC Batch:

Prep Batch:

Hg, Dissolved

32864 28580 Analytical Method: Date Analyzed:

S 7470A 2006-12-15 2006-12-14

Prep Method: N/A TS Analyzed By:

Prepared By: TS

Sample Preparation: RL

Parameter Dissolved Mercury

Result Flag < 0.000200 Units mg/L Dilution

Dilution

RL 0.000200

Sample: 111247 - HLSF-0085-HMW-024-1206

Analysis: QC Batch: Ion Chromatography

33039

Analytical Method: Date Analyzed:

E 300.0 2006-12-08 Prep Method: N/A Analyzed By: JR

Prep Batch:

28716

Sample Preparation:

2006-12-08

Prepared By:

Parameter Flag Chloride Fluoride Sulfate

RL Result

> 100 2170 mg/L 5.75 mg/L 10 8570 500 mg/L

Units

JR

RL

2.00

0.200

1.00

Sample: 111247 - HLSF-0085-HMW-024-1206

Analysis: OC Batch:

Prep Batch:

Na. Dissolved

32942 28533 Analytical Method: Date Analyzed:

S 6010B 2006-12-19 Sample Preparation: 2006-12-13 Prep Method: S 3005A RR

Analyzed By: Prepared By: TS

Work Order: 6121108

HELSTF Groundwater Samples

| | | RL | | | |
|------------------|------|--------|-------|----------|-------|
| Parameter | Flag | Result | Units | Dilution | RL |
| Dissolved Sodium | | 4040 | mg/L | 1 | 0.500 |

Sample: 111247 - HLSF-0085-HMW-024-1206

Na, Total Analysis: OC Batch: 32825 Prep Batch: 28447

Analytical Method: S 6010B Date Analyzed: 2006-12-14 Sample Preparation: 2006-12-11

Prep Method: S 3010A Analyzed By: RR Prepared By: TS

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RL Units Dilution RLParameter Flag Result 0.500 3460 10 Total Sodium mg/L

Sample: 111247 - HLSF-0085-HMW-024-1206

Analysis: NO2 (IC) QC Batch: 33039 Prep Batch: 28716

Analytical Method: E 300.0 Date Analyzed: 2006-12-08 Sample Preparation: 2006-12-08

Prep Method: N/A Analyzed By: JR Prepared By: JR

RL Flag Units Dilution RLParameter Result Nitrite-N < 0.500 mg/L 0.100

Sample: 111247 - HLSF-0085-HMW-024-1206

Analysis: NO3 (IC) QC Batch: 33039 Prep Batch: 28716

Analytical Method: E 300.0 Date Analyzed: 2006-12-08 Sample Preparation: 2006-12-08

Prep Method: N/A Analyzed By: JR Prepared By: JR

RL Dilution RLParameter Flag Result Units 67.5 mg/L 50 0.100 Nitrate-N

Sample: 111247 - HLSF-0085-HMW-024-1206

Analysis: P, Total 32745 OC Batch: Prep Batch: 28447

Analytical Method: S 6010B Date Analyzed: 2006-12-12 Sample Preparation: 2006-12-11

S 3010A Prep Method: Analyzed By: RR Prepared By: TS

RL Dilution Parameter Flag Result Units RL 0.0500 Total Phosphorous < 0.0500 mg/L

Work Order: 6121108 **HELSTF** Groundwater Samples

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Sample: 111247 - HLSF-0085-HMW-024-1206

Analysis: Pb. Dissolved QC Batch: 32921 Prep Batch: 28533

Analytical Method: S 6010B Date Analyzed: 2006-12-18 Sample Preparation: 2006-12-13 Prep Method: S 3005A Analyzed By: RR Prepared By: TS

RL

Parameter Flag Result Dilution Units RLDissolved Lead < 0.00500 mg/L 0.00500

Sample: 111247 - HLSF-0085-HMW-024-1206

Analysis: ρH QC Batch: 32902 28610 Prep Batch:

Analytical Method: SM 4500-H+ Date Analyzed: 2006-12-08 Sample Preparation: 2006-12-08

Prep Method: N/A Analyzed By: DR Prepared By: JR

RL

Parameter Flag Result Units Dilution RL7.90 pΗ 0.00 s.u.

Sample: 111247 - HLSF-0085-HMW-024-1206

Analysis: Se, Dissolved QC Batch: 32921 Prep Batch: 28533

Analytical Method: S 6010B Date Analyzed: 2006-12-18 Sample Preparation: 2006-12-13

S 3005A Prep Method: Analyzed By: RR Prepared By: TS

RL

Parameter Flag Result Units Dilution RLDissolved Selenium 0.0990 mg/L 0.0100

Sample: 111247 - HLSF-0085-HMW-024-1206

Analysis: TDS OC Batch: 32873 Prep Batch: 28588 Analytical Method: SM 2540C Date Analyzed: 2006-12-13 Sample Preparation: 2006-12-13

Prep Method: N/A Analyzed By: DR Prepared By: JR

RLParameter Flag Result Dilution Units RL Total Dissolved Solids 18200 mg/L 1 5.00

Sample: 111247 - HLSF-0085-HMW-024-1206

Analysis: Total 8 Metals Analytical Method: S 6010B Prep Method: S 3010A OC Batch: 32745 Date Analyzed: 2006-12-12 Analyzed By: RR Prep Batch: 28447 Sample Preparation: 2006-12-11 Prepared By: TS Analysis: Total 8 Metals Analytical Method: Prep Method: S 7470A N/A OC Batch: 32862 Date Analyzed: Analyzed By: 2006-12-15 TS Prep Batch: 28579 Sample Preparation: 2006-12-14 Prepared By: TS

| | | RL | | | |
|----------------|------|------------|-------|----------|----------|
| Parameter | Flag | Result | Units | Dilution | RL |
| Total Silver | | < 0.00200 | mg/L | l | 0.00200 |
| Total Arsenic | | < 0.0100 | mg/L | 1 | 0.0100 |
| Total Barium | | 0.0100 | mg/L | 1 | 0.0100 |
| Total Cadmium | | < 0.00100 | mg/L | 1 | 0.00100 |
| Total Chromium | | < 0.00500 | mg/L | 1 | 0.00500 |
| Total Mercury | | < 0.000200 | mg/L | 1 | 0.000200 |
| Total Lead | | < 0.00500 | mg/L | 1 | 0.00500 |
| Total Selenium | | 0.114 | mg/L | 1 | 0.0100 |

Sample: 111247 - HLSF-0085-HMW-024-1206

Analysis: Volatiles WTS Analytical Method: S 8260B Prep Method: S 3510C QC Batch: 32815 Date Analyzed: 2006-12-12 Analyzed By: JG Prep Batch: 28548 Sample Preparation: 2006-12-12 Prepared By: JG

| | | RL | | | |
|------------------------------------|------|--------|-----------------------------|----------|------|
| Parameter | Flag | Result | Units | Dilution | RL |
| Bromochloromethane | | <1.00 | μg/L | 1 | 1.00 |
| Dichlorodifluoromethane | | < 1.00 | μ g/L | 1 | 1.00 |
| Chloromethane (methyl chloride) | | <1.00 | μ g/L | 1 | 1.00 |
| Vinyl Chloride | | < 1.00 | μ g/L | 1 | 1.00 |
| Bromomethane (methyl bromide) | | < 5.00 | μ g/L | 1 | 5.00 |
| Chloroethane | | < 1.00 | μ g/L | 1 | 1.00 |
| Trichlorofluoromethane | | <1.00 | μ g/L | 1 | 1.00 |
| Acetone | | < 10.0 | μ g/L | 1 | 10.0 |
| Iodomethane (methyl iodide) | | < 5.00 | μ g/L | 1 | 5.00 |
| Carbon Disulfide | | < 1.00 | $\mu \mathrm{g}/\mathrm{L}$ | 1 | 1.00 |
| Acrylonitrile | | <1.00 | $\mu { m g/L}$ | 1 | 1.00 |
| 2-Butanone (MEK) | | < 5.00 | μ g/L | 1 | 5.00 |
| 4-Methyl-2-pentanone (MIBK) | | < 5.00 | μ g/L | 1 | 5.00 |
| 2-Hexanone | | < 5.00 | $\mu \mathrm{g}/\mathrm{L}$ | 1 | 5.00 |
| trans 1,4-Dichloro-2-butene | | < 10.0 | μ g/L | 1 | 10.0 |
| 1,1-Dichloroethene | | < 1.00 | $\mu { m g/L}$ | 1 | 1.00 |
| Methylene chloride | | < 5.00 | μ g/L | 1 | 5.00 |
| MTBE | | < 1.00 | μg/L | 1 | 1.00 |
| trans-1,2-Dichloroethene | | < 1.00 | μ g/L | 1 | 1.00 |
| 1,1-Dichloroethane | | < 1.00 | μ g/L | 1 | 1.00 |
| cis-1,2-Dichloroethene | | < 1.00 | μ g/L | 1 | 1.00 |
| 2,2-Dichloropropane | | < 1.00 | μ g/L | 1 | 1.00 |
| 1,2-Dichloroethane (EDC) | | < 1.00 | μ g/L | 1 | 1.00 |
| Chloroform | | < 1.00 | μ g/L | 1 | 1.00 |
| 1,1,1-Trichloroethane | | < 1.00 | μ g/L |] | 1.00 |
| 1,1-Dichloropropene | | <1.00 | $\mu \mathrm{g}/\mathrm{L}$ | l | 1.00 |
| Benzene | | < 1.00 | μ g/L | l | 1.00 |
| Carbon Tetrachloride | | <1.00 | μ g/L | 1 | 1.00 |
| 1,2-Dichloropropane | | < 1.00 | μ g/L | 1 | 1.00 |
| Trichloroethene (TCE) | | < 1.00 | μ g/L | 1 | 1.00 |
| Dibromomethane (methylene bromide) | | <1.00 | μ g/L | 1 | 1.00 |
| Bromodichloromethane | | <1.00 | $\mu \mathrm{g/L}$ | 1 | 1.00 |
| 2-Chloroethyl vinyl ether | | < 5.00 | μg/L | 1 | 5.00 |

continued . . .

sample 111247 continued...

| | | RL | | | |
|-----------------------------|------|--------|-----------------------------|----------|------|
| Parameter | Flag | Result | Units | Dilution | RL |
| cis-1,3-Dichloropropene | | <1.00 | μg/L | 1 | 1.00 |
| trans-1,3-Dichloropropene | | < 1.00 | μ g/L | 1 | 1.00 |
| Toluene | | <1.00 | μ g/L | 1 | 1.00 |
| 1,1,2-Trichloroethane | | <1.00 | μ g/L | 1 | 1.00 |
| 1,3-Dichloropropane | | < 1.00 | $\mu { m g/L}$ | 1 | 1.00 |
| Dibromochloromethane | | < 1.00 | μ g/L | 1 | 1.00 |
| 1,2-Dibromoethane (EDB) | | < 1.00 | μ g/ $f L$ | l | 1.00 |
| Tetrachloroethene (PCE) | | < 1.00 | $\mu { m g/L}$ | 1 | 1.00 |
| Chlorobenzene | | <1.00 | $\mu \mathrm{g}/\mathrm{L}$ | 1 | 1.00 |
| 1,1,1,2-Tetrachloroethane | | <1.00 | $\mu \mathrm{g}/\mathrm{L}$ | l | 1.00 |
| Ethylbenzene | | < 1.00 | μ g/L | 1 | 1.00 |
| m,p-Xylene | | < 1.00 | $\mu \mathrm{g/L}$ | 1 | 1.00 |
| Bromoform | | < 1.00 | μ g/L | 1 | 1.00 |
| Styrene | | < 1.00 | μ g/L | 1 | 1.00 |
| o-Xylene | | < 1.00 | μ g/L | 1 | 1.00 |
| 1,1,2,2-Tetrachloroethane | | <1.00 | μ g/L | l | 1.00 |
| 2-Chlorotoluene | | < 1.00 | μg/L | 1 | 1.00 |
| 1,2,3-Trichloropropane | | < 1.00 | μg/L | 1 | 1.00 |
| Isopropylbenzene | | < 1.00 | μ g/L | 1 | 1.00 |
| Bromobenzene | | <1.00 | $\mu \mathrm{g/L}$ | i | 1.00 |
| n-Propylbenzene | | <1.00 | μ g/L | 1 | 1.00 |
| 1,3,5-Trimethylbenzene | | <1.00 | μ g/L | 1 | 1.00 |
| tert-Butylbenzene | | <1.00 | μ g/L | 1 | 1.00 |
| 1,2,4-Trimethylbenzene | | <1.00 | μ g/L | 1 | 1.00 |
| 1,4-Dichlorobenzene (para) | | <1.00 | μ g/L | 1 | 1.00 |
| sec-Butylbenzene | | < 1.00 | $\mu { m g/L}$ | 1 | 1.00 |
| 1,3-Dichlorobenzene (meta) | | < 1.00 | μ g/L | 1 | 1.00 |
| p-Isopropyltoluene | | < 1.00 | μ g/L | 1 | 1.00 |
| 4-Chlorotoluene | | < 1.00 | μ g/L | 1 | 1.00 |
| 1,2-Dichlorobenzene (ortho) | | <1.00 | μ g/L | 1 | 1.00 |
| n-Butylbenzene | | <1.00 | μ g/L | 1 | 1.00 |
| 1,2-Dibromo-3-chloropropane | | < 5.00 | μ g/L | 1 | 5.00 |
| 1,2,3-Trichlorobenzene | | < 5.00 | $\mu \mathrm{g}/\mathrm{L}$ | 1 | 5.00 |
| 1,2,4-Trichlorobenzene | | < 5.00 | μ g/L | 1 | 5.00 |
| Naphthalene | | < 5.00 | $\mu \mathrm{g/L}$ | 1 | 5.00 |
| Hexachlorobutadiene | | < 5.00 | μ g/L | 1 | 5.00 |
| Isopropyl Alcohol | | < 5.00 | $\mu \mathrm{g/L}$ | 1 | 5.00 |
| Tert-butyl Alcohol | | < 5.00 | μ g/L | 1 | 5.00 |
| 1,4-Dioxane | | < 5.00 | μg/L | 1 | 5.00 |

| 0 | Pl. | D . U | T T '. | Du d | Spike | Percent | Recovery |
|------------------------------|------|--------|-----------|----------|--------|----------|------------|
| Surrogate | Flag | Result | Units | Dilution | Amount | Recovery | Limits |
| Dibromofluoromethane | | 53.2 | μg/L | 1 | 50.0 | 106 | 82.4 - 115 |
| Toluene-d8 | | 51.7 | μ g/L | l | 50.0 | 103 | 89.7 - 108 |
| 4-Bromofluorobenzene (4-BFB) | | 44.9 | μg/L | 1 | 50.0 | 90 | 84.6 - 114 |

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Prep Method: S 3010A

Prep Method: S 3510C

Analyzed By: JG

Analysis:

Analysis:

QC Batch:

Sample: 111247 - HLSF-0085-HMW-024-1206

| Analysis: QC Batch: Prep Batch: | Zn, Dissolved 32921 28533 | Analytical Method: Date Analyzed: Sample Preparation: | 2006-12-18 | Prep Method: Analyzed By: Prepared By: | RR |
|---------------------------------------|---------------------------------|---|------------|--|---------|
| | | RL | | | |
| Parameter | Flag | Result | Units | Dilution | RL |
| Dissolved Zi | inc | < 0.00500 | mg/L | 1 | 0.00500 |

Sample: 111247 - HLSF-0085-HMW-024-1206

Zn, Total

| QC Batch: | 32745 | Date Analyzed: | 2006-12-12 | Analyzed By: | RR |
|-------------|-------|---------------------|------------|--------------|---------|
| Prep Batch: | 28447 | Sample Preparation: | 2006-12-11 | Prepared By: | TS |
| | | | | | |
| | | RL | | | |
| Parameter | Flag | Result | Units | Dilution | RL |
| Total Zinc | | < 0.00500 | mg/L | I | 0.00500 |

S 6010B

S 8260B

2006-12-12

Analytical Method:

Analytical Method:

Date Analyzed:

Sample: 111248 - HLSF-0085-TB-788-1206

Volatiles WTS

32815

| QC Batch: 32815 | Date Analy: | zed: 2006-12 | -12 | Analyzed By: | JG |
|---------------------------------|-------------|-------------------|--------------------|--------------|------|
| Prep Batch: 28548 | Sample Pre | paration: 2006-12 | -12 | Prepared By: | JG |
| | | RL | | | |
| Parameter | Flag | Result | Units | Dilution | RL |
| Bromochloromethane | | <1.00 | μg/L | 1 | 1.00 |
| Dichlorodifluoromethane | | < 1.00 | μ g/L | 1 | 1.00 |
| Chloromethane (methyl chloride) | | < 1.00 | μg/L | 1 | 1.00 |
| Vinyl Chloride | | < 1.00 | μ g/L | l | 1.00 |
| Bromomethane (methyl bromide) | | < 5.00 | μg/L | 1 | 5.00 |
| Chloroethane | | <1.00 | μ g/L | 1 | 1.00 |
| Trichlorofluoromethane | | < 1.00 | $\mu \mathrm{g/L}$ | 1 | 1.00 |
| Acetone | | <10.0 | μ g/L | i | 10.0 |
| Iodomethane (methyl iodide) | | < 5.00 | $\mu { m g/L}$ | 1 | 5.00 |
| Carbon Disulfide | | <1.00 | μ g/L | 1 | 1.00 |
| Acrylonitrile | | <1.00 | μ g/L | 1 | 1.00 |
| 2-Butanone (MEK) | | < 5.00 | μ g/L | 1 | 5.00 |
| 4-Methyl-2-pentanone (MIBK) | | < 5.00 | $\mu \mathrm{g/L}$ | 1 | 5.00 |
| 2-Hexanone | | < 5.00 | μ g/L | 1 | 5.00 |
| trans 1,4-Dichloro-2-butene | | < 10.0 | $\mu { m g/L}$ | 1 | 10.0 |
| 1,1-Dichloroethene | | < 1.00 | μg/L | 1 | 1.00 |
| Methylene chloride | | < 5.00 | μ g/L | l | 5.00 |
| MTBE | | <1.00 | μ g/L | 1 | 1.00 |
| trans-1,2-Dichloroethene | | < 1.00 | μ g/L | 1 | 1.00 |
| 1,1-Dichloroethane | | < 1.00 | μ g/L | *** | 1.00 |
| cis-1,2-Dichloroethene | | < 1.00 | $\mu { m g/L}$ | 1 | 1.00 |
| 2,2-Dichloropropane | | < 1.00 | μ g/L | i | 1.00 |
| 1,2-Dichloroethane (EDC) | | <1.00 | μg/L | 1 | 1.00 |

continued . . .

sample 111248 continued...

| | | RL | | | |
|------------------------------------|------|--------|---------------------|----------|------|
| Parameter | Flag | Result | Units | Dilution | RL |
| Chloroform | | <1.00 | μg/L | l | 1.00 |
| 1,1,1-Trichloroethane | | < 1.00 | μ g/L | 1 | 1.00 |
| 1,1-Dichloropropene | | <1.00 | μ g/L | 1 | 1.00 |
| Benzene | | <1.00 | μ g/L | 1 | 1.00 |
| Carbon Tetrachloride | | <1.00 | μ g/L | 1 | 1.00 |
| 1,2-Dichloropropane | | <1.00 | μ g/L | 1 | 1.00 |
| Trichloroethene (TCE) | | < 1.00 | μ g/L | 1 | 1.00 |
| Dibromomethane (methylene bromide) | | < 1.00 | μ g/L | 1 | 1.00 |
| Bromodichloromethane | | <1.00 | μ g/L | 1 | 1.00 |
| 2-Chloroethyl vinyl ether | | < 5.00 | μ g/L | 1 | 5.00 |
| cis-1,3-Dichloropropene | | < 1.00 | μ g/L | 1 | 1.00 |
| trans-1,3-Dichloropropene | | <1.00 | μg/L | 1 | 1.00 |
| Toluene | | <1.00 | μg/L | l | 1.00 |
| 1,1,2-Trichloroethane | | <1.00 | μg/L | 1 | 1.00 |
| 1,3-Dichloropropane | | < 1.00 | μg/L | ì | 1.00 |
| Dibromochloromethane | | < 1.00 | μg/L | 1 | 1.00 |
| 1,2-Dibromoethane (EDB) | | <1.00 | $\mu { m g}/{ m L}$ | 1 | 1.00 |
| Tetrachloroethene (PCE) | | <1.00 | μg/L | 1 | 1.00 |
| Chlorobenzene | | <1.00 | μg/L | 1 | 1.00 |
| 1,1,1,2-Tetrachloroethane | | < 1.00 | μg/L | 1 | 1.00 |
| Ethylbenzene | | <1.00 | μg/L | 1 | 1.00 |
| m,p-Xylene | | <1.00 | μg/L | 1 | 1.00 |
| Bromoform | | <1.00 | μg/L | 1 | 1.00 |
| Styrene | | < 1.00 | μg/L | 1 | 1.00 |
| o-Xylene | | < 1.00 | μg/L | 1 | 1.00 |
| 1,1,2,2-Tetrachloroethane | | <1.00 | μg/L | 1 | 1.00 |
| 2-Chlorotoluene | | <1.00 | $\mu \mathrm{g/L}$ | 1 | 1.00 |
| 1,2,3-Trichloropropane | | <1.00 | μg/L | 1 | 1.00 |
| Isopropylbenzene | | < 1.00 | μg/L | 1 | 1.00 |
| Bromobenzene | | <1.00 | μg/L | 1 | 1.00 |
| n-Propylbenzene | | < 1.00 | μg/L | 1 | 1.00 |
| 1,3,5-Trimethylbenzene | | <1.00 | μg/L | 1 | 1.00 |
| tert-Butylbenzene | | < 1.00 | μg/L | 1 | 1.00 |
| 1,2,4-Trimethylbenzene | | < 1.00 | μg/L | 1 | 1.00 |
| 1,4-Dichlorobenzene (para) | | < 1.00 | μ g/L | 1 | 1.00 |
| sec-Butylbenzene | | <1.00 | μg/L | 1 | 1.00 |
| 1,3-Dichlorobenzene (meta) | | <1.00 | μg/L | 1 | 1.00 |
| p-Isopropyltoluene | | < 1.00 | μg/L | i | 1.00 |
| 4-Chlorotoluene | | <1.00 | μg/L | 1 | 1.00 |
| 1,2-Dichlorobenzene (ortho) | | <1.00 | μ g/L | 1 | 1.00 |
| n-Butyibenzene | | <1.00 | μg/L | 1 | 1.00 |
| 1,2-Dibromo-3-chloropropane | | < 5.00 | μg/L | 1 | 5.00 |
| 1,2,3-Trichlorobenzene | | < 5.00 | μg/L | 1 | 5.00 |
| 1,2,4-Trichlorobenzene | | < 5.00 | μg/L | 1 | 5.00 |
| Naphthalene | | < 5.00 | μg/L | 1 | 5.00 |
| Hexachlorobutadiene | | < 5.00 | μg/L | - | 5.00 |
| Isopropyl Alcohol | | <5.00 | μg/L | ĺ | 5.00 |
| Tert-butyl Alcohol | | < 5.00 | μg/L | 1 | 5.00 |
| 1,4-Dioxane | | < 5.00 | μg/L μg/L | 1 | 5.00 |
| I,TTDIOXAIIC | | \J.00 | 128/12 | | 2.00 |

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HELSTF Groundwater Samples

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| Surrogate Dibromofluoromethan Toluene-d8 4-Bromofluorobenzen | | Result 53.5 51.8 45.2 | Units μg/L μg/L μg/L | Dilution 1 1 1 | Spike Amount 50.0 50.0 50.0 | Percent Recovery 107 104 90 | Reco Lin 82.4 89.7 84.6 | nits - 115 - 108 |
|--|-----------------|---------------------------|-------------------------------|-------------------------|---|--|---|------------------------|
| Method Blank (1) | QC Batch: 32699 | | | | | | | |
| QC Batch: 32699 Prep Batch: 28448 | | Date Analy: QC Prepara | | 006-12-08 006-12-08 | | | zed By: red By: | DR DR |
| Parameter Specific Conductance | Flag | | Res | DL sult .00 | Unit | | | RL |
| Method Blank (1) | QC Batch: 32703 | | | | | | | |
| QC Batch: 32703 Prep Batch: 28457 | | Date Analy: QC Prepara | | 006-12-11 006-12-11 | | | zed By: red By: | SM SM |
| Parameter Ammonia-N | Flag | | MI Res <0.8 | sult | Unit: mg/I | | | RL 1 |
| 1xmmoma 11 | | | | | mg, r | | .,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | <u> </u> |
| Method Blank (1) | QC Batch: 32745 | | | | | | | |
| QC Batch: 32745 Prep Batch: 28447 | | Date Analy QC Prepara | | 006-12-12 006-12-11 | | | yzed By: ired By: | RR TS |
| Parameter | Flag | | M Res | DL sult | Units | | | RL |
| Total Copper | Ting | | < 0.00 | | mg/L | TO THE OWN RESTRICTION AND ADDRESS OF THE OWN RESTRICTION ADDRESS OF THE OWN RESTRICTION ADDRESS OF THE OWN RESTRICTION AND ADDRESS OF THE OWN RESTRICTION AND ADDRESS OF THE OWN RESTRICTION ADDRESS OF THE OWN RESTRICTION ADDRESS OF THE OWN RESTRICTION ADDRESS O | | 0.005 |
| Method Blank (1) | QC Batch: 32745 | | | | | | | |
| QC Batch: 32745 Prep Batch: 28447 | | Date Analy QC Prepara | | 006-12-12 006-12-11 | | | yzed By: ared By: | RR TS |
| Parameter Total Phosphorous | Flag | | | MDL Result 0.0229 | Uni mg. | | | RL 0.05 |
| Method Blank (1) | QC Batch: 32745 | | | | | | | |
| QC Batch: 32745 Prep Batch: 28447 | | Date Analy QC Prepara | | 006-12-12 006-12-11 | | | yzed By: ured By: | RR TS |

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| Parameter Flag Result Units | |
|-----------------------------|-------|
| | RL |
| Total Zinc <0.000666 mg/L | 0.005 |

Method Blank (1) QC Batch: 32745

Analyzed By: QC Batch: 32745 Date Analyzed: 2006-12-12 RR Prepared By: TS

Prep Batch: 28447 QC Preparation: 2006-12-11

| | | MDL | | |
|----------------|------|------------|-------|-------|
| Parameter | Flag | Result | Units | RL |
| Total Silver | | < 0.000274 | mg/L | 0.002 |
| Total Arsenic | | < 0.00489 | mg/L | 0.01 |
| Total Barium | | < 0.000450 | mg/L | 0.01 |
| Total Cadmium | | < 0.000268 | mg/L | 0.001 |
| Total Chromium | | < 0.00357 | mg/L | 0.005 |
| Total Lead | | < 0.00310 | mg/L | 0.005 |
| Total Selenium | | < 0.00556 | mg/L | 0.01 |

Method Blank (1) QC Batch: 32815

Analyzed By: JG QC Batch: 32815 Date Analyzed: 2006-12-12 Prepared By: JG Prep Batch: 28548 QC Preparation: 2006-12-12

MDL RL Parameter Flag Result Units < 0.0699 Bromochloromethane μg/L Dichlorodifluoromethane < 0.0598 $\mu g/L$ 1 1 Chloromethane (methyl chloride) < 0.230 μ g/L Vinyl Chloride < 0.0902 μ g/L 1 5 Bromomethane (methyl bromide) < 0.740 μ g/L Chloroethane 1 < 0.195 μ g/L Trichlorofluoromethane < 0.160 1 μg/L 10 Acetone 2.47 μ g/L 5 Iodomethane (methyl iodide) < 0.112 $\mu g/L$ Carbon Disulfide < 0.0764 1 $\mu \mathrm{g/L}$ 1 Acrylonitrile < 0.184 μ g/L 5 2-Butanone (MEK) < 0.394 μ g/L 5 4-Methyl-2-pentanone (MIBK) < 0.484 μ g/L 5 < 0.0975 2-Hexanone $\mu g/L$ 10 trans 1,4-Dichloro-2-butene < 0.420 $\mu g/L$ 1 1,1-Dichloroethene < 0.0736 μ g/L 5 Methylene chloride 1.58 μg/L < 0.0504 1 MTBE μ g/L trans-1,2-Dichloroethene < 0.0598 1 μ g/L 1,1-Dichloroethane < 0.0299 μ g/L cis-1,2-Dichloroethene < 0.101 μ g/L 2,2-Dichloropropane < 0.0665 $\mu g/L$ 1,2-Dichloroethane (EDC) < 0.0557 μ g/L Chloroform < 0.0475 μ g/L 1,1,1-Trichloroethane < 0.0846 μg/L

continued . . .

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Report Date: January 5, 2007

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method blank continued ...

| | MDL | | |
|------------------------------------|----------|-----------------------------|----|
| Parameter Flag | Result | Units | RL |
| 1,1-Dichloropropene | < 0.0423 | μg/L | 1 |
| Benzene | < 0.0495 | $\mu \mathrm{g/L}$ | 1 |
| Carbon Tetrachloride | < 0.121 | μg/L | 1 |
| 1,2-Dichloropropane | < 0.0933 | μ g/L | 1 |
| Trichloroethene (TCE) | < 0.0495 | μg/L | 1 |
| Dibromomethane (methylene bromide) | < 0.0640 | μg/L | 1 |
| Bromodichloromethane | < 0.0651 | $\mu \mathrm{g}/\mathrm{L}$ | 1 |
| 2-Chloroethyl vinyl ether | < 0.0905 | μg/L | 5 |
| cis-1,3-Dichloropropene | < 0.0640 | μ g/L | 1 |
| trans-1,3-Dichloropropene | < 0.0504 | μg/L | 1 |
| Toluene | 0.330 | μg/L | 1 |
| 1,1,2-Trichloroethane | < 0.106 | μ g/L | 1 |
| 1,3-Dichloropropane | < 0.0625 | $\mu \mathrm{g/L}$ | 1 |
| Dibromochloromethane | < 0.0791 | μ g/L | l |
| 1,2-Dibromoethane (EDB) | < 0.0460 | $\mu \mathrm{g/L}$ | l |
| Tetrachloroethene (PCE) | < 0.0696 | μg/L | 1 |
| Chlorobenzene | < 0.0217 | $\mu { m g/L}$ | 1 |
| 1,1,1,2-Tetrachloroethane | < 0.125 | μ g/L | 1 |
| Ethylbenzene | < 0.0566 | μg/L | 1 |
| m,p-Xylene | < 0.0363 | μg/L | 1 |
| Bromoform | < 0.0859 | μg/L | i |
| Styrene | < 0.0394 | μg/L | 1 |
| o-Xylene | < 0.0505 | $\mu { m g/L}$ | 1 |
| 1,1,2,2-Tetrachloroethane | < 0.0672 | μg/L | 1 |
| 2-Chlorotoluene | < 0.0283 | μg/L | i |
| 1,2,3-Trichloropropane | < 0.0679 | μg/L | 1 |
| Isopropylbenzene | < 0.0406 | μg/L | 1 |
| Bromobenzene | < 0.103 | μg/L | 1 |
| n-Propylbenzene | < 0.0423 | μg/L | I |
| 1,3,5-Trimethylbenzene | < 0.0557 | μg/L | 1 |
| tert-Butylbenzene | < 0.0770 | μg/L | 1 |
| 1,2,4-Trimethylbenzene | < 0.0336 | μg/L | 1 |
| 1,4-Dichlorobenzene (para) | < 0.0672 | μg/L | 1 |
| sec-Butylbenzene | < 0.0439 | μg/L | 1 |
| 1,3-Dichlorobenzene (meta) | < 0.0672 | μg/L | 1 |
| p-Isopropyltoluene | < 0.0513 | μg/L | 1 |
| 4-Chlorotoluene | < 0.0460 | μg/L | 1 |
| 1,2-Dichlorobenzene (ortho) | < 0.0629 | μg/L | 1 |
| n-Butylbenzene | < 0.0400 | μg/L | J |
| 1,2-Dibromo-3-chloropropane | < 0.538 | μg/L | 5 |
| 1,2,3-Trichlorobenzene | < 0.504 | $\mu \mathrm{g}/\mathrm{L}$ | 5 |
| 1,2,4-Trichlorobenzene | < 0.166 | μg/L | 5 |
| Naphthalene | 0.740 | μg/L | 5 |
| Hexachlorobutadiene | < 0.176 | μg/L | 5 |
| Isopropyl Alcohol | < 5.00 | μg/L | 5 |
| Tert-butyl Alcohol | <5.00 | μg/L | 5 |
| 1,4-Dioxane | <5.00 | μ g/L | 5 |

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Work Order: 6121108 **HELSTF** Groundwater Samples

| Surrogate | Flag | Result | Units | Dilution | Spike Amount | Percent Recovery | Recovery Limits |
|------------------------------|------|--------|-----------|----------|-----------------|---------------------|--------------------|
| Dibromofluoromethane | | 43.9 | μg/L | 1 | 50.0 | 88 | 82.4 - 115 |
| Toluene-d8 | | 50.0 | μ g/L | 1 | 50.0 | 100 | 89.7 - 108 |
| 4-Bromofluorobenzene (4-BFB) | | 47.0 | μ g/L | 1 | 50.0 | 94 | 84.6 - 114 |

Method Blank (1) OC Batch: 32825

OC Batch: 32825 28447 Prep Batch:

Date Analyzed: 2006-12-14 QC Preparation: 2006-12-11

Prepared By: TS

MDL

Parameter Result Units Flag RL Total Sodium < 0.0309 mg/L 0.5

Method Blank (1) QC Batch: 32862

QC Batch: 32862 Prep Batch:

Date Analyzed: 28579

2006-12-15 Analyzed By: TS QC Preparation: 2006-12-15 Prepared By: TS

MDL

Parameter Flag Result Units RL Total Mercury < 0.0000217 0.0002 mg/L

Method Blank (1) QC Batch: 32864

QC Batch: 32864 Prep Batch:

Date Analyzed: 2006-12-15 28580 QC Preparation: 2006-12-15 Analyzed By: TS Prepared By: TS

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Analyzed By: RR

MDL

Parameter Flag Result Units RL < 0.0000329 Dissolved Mercury mg/L 0.0002

Method Blank (1) QC Batch: 32873

QC Batch: Prep Batch: 28588

32873

Date Analyzed: 2006-12-13

QC Preparation: 2006-12-13 Analyzed By: DR Prepared By: DR

MDL Parameter Flag Result Units

RLTotal Dissolved Solids < 5.00 5 mg/L

Method Blank (1) QC Batch: 32918

OC Batch: 32918 Date Analyzed: 2006-12-15 Analyzed By: JG Prep Batch: 28627 QC Preparation: 2006-12-15 Prepared By: JG

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| 7 | | HELSTF Groun | dwater Samples | | | |
|-----------------------|-----------------|-----------------------------------|--------------------------|--|----------------|--------------------|
| | | N | IDL | · · · - · · · · · · · · · · · · · · · · | | |
| Parameter | Flag | | esult | Units | | RL |
| Hydroxide Alkalinity | | | 1.00 | mg/L as CaCo3 | | 1 |
| Carbonate Alkalinity | | | 1.00 | mg/L as CaCo3 | | 1 |
| Bicarbonate Alkalinit | y | | 4.00 | mg/L as CaCo3 | | 4 |
| Total Alkalinity | | | 2.38 | mg/L as CaCo3 | | 4 |
| Method Blank (1) | QC Batch: 32921 | | | | | |
| QC Batch: 32921 | | Date Analyzed: | 2006-12-18 | | Analyzed By: | RR |
| Prep Batch: 28533 | | | 2006-12-13 | | Prepared By: | TS |
| Parameter | Flag | | MDL Result | Units | | RL |
| Dissolved Silver | riag | <0 | 000199 | mg/L | | $\frac{RL}{0.002}$ |
| | | | | *************************************** | | |
| Method Blank (1) | QC Batch: 32921 | | | | | |
| QC Batch: 32921 | | _ | 2006-12-18 | | Analyzed By: | RR |
| Prep Batch: 28533 | | QC Preparation: | 2006-12-13 | | Prepared By: | TS |
| | | | MDL | | | |
| Parameter | Flag | | Result | Units | | RL |
| Dissolved Arsenic | | <(| 0.00360 | mg/L | | 0.005 |
| | | | | | | |
| Method Blank (1) | QC Batch: 32921 | | | | | |
| QC Batch: 32921 | | Date Analyzed: | 2006-12-18 | | Analyzed By: | RR |
| Prep Batch: 28533 | | QC Preparation: | 2006-12-13 | | Prepared By: | TS |
| | | | MDL | | | |
| Parameter | Flag | | Result | Units | | RL |
| Dissolved Barium | | <(| 0.000450 | mg/L | | 0.01 |
| | QC Batch: 32921 | | | | | |
| Method Blank (1) | | | | | Analyzed By: | RR |
| | | Date Analyzed: | 2006-12-18 | | Timity Zod DY. | - |
| | | Date Analyzed: QC Preparation: | 2006-12-18 2006-12-13 | | Prepared By: | TS |
| QC Batch: 32921 | Flag | • | | Units | | TS RL |

Analyzed By: RR Prepared By: TS QC Batch: 32921 Date Analyzed: 2006-12-18 Prep Batch: 28533 QC Preparation: 2006-12-13

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Prep Batch:

28533

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Prepared By:

TS

HELSTF Groundwater Samples

MDL Parameter Flag Result Units RLDissolved Chromium < 0.00357 0.005 mg/L Method Blank (1) QC Batch: 32921 Date Analyzed: Analyzed By: RR QC Batch: 32921 2006-12-18 Prep Batch: 28533 QC Preparation: 2006-12-13 Prepared By: TS **MDL** Units RL Parameter Flag Result Dissolved Copper < 0.00127 0.0125 mg/L Method Blank (1) QC Batch: 32921 OC Batch: 32921 Date Analyzed: 2006-12-18 Analyzed By: RRPrepared By: TS Prep Batch: 28533 QC Preparation: 2006-12-13 MDL Units RLParameter Flag Result 0.005 Dissolved Lead < 0.00398 mg/L Method Blank (1) QC Batch: 32921 QC Batch: Date Analyzed: 2006-12-18 Analyzed By: RR 32921 Prepared By: TS Prep Batch: 28533 QC Preparation: 2006-12-13 MDL Parameter Flag Result Units RL Dissolved Selenium < 0.00556 mg/L 0.01 Method Blank (1) QC Batch: 32921 QC Batch: 32921 Date Analyzed: 2006-12-18 Analyzed By: RR Prep Batch: 28533 QC Preparation: 2006-12-13 Prepared By: TS MDL Parameter Flag Result Units RL 0.005 < 0.00300 mg/L Dissolved Zinc Method Blank (1) QC Batch: 32942 Analyzed By: 32942 2006-12-19 RROC Batch: Date Analyzed:

QC Preparation:

2006-12-13

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| Parameter | Flag | MDL Result | Units | | RL_ |
|---------------------|-----------------|----------------------------|--------------|--------------|-----|
| Dissolved Sodium | | < 0.0309 | mg/L | | 0.5 |
| | | | | | |
| Method Blank (1) | QC Batch: 33039 | | | | |
| QC Batch: 33039 | | Date Analyzed: 2006-12-08 | | Analyzed By: | JR |
| Prep Batch: 28716 | | QC Preparation: 2006-12-08 | | Prepared By: | JR |
| | | MDL | | | |
| Parameter | Flag | Result | Units | | RL |
| Bromide | | < 0.0217 | mg/L | | 0.2 |
| | | | | | |
| Method Blank (1) | QC Batch: 33039 | | | | |
| QC Batch: 33039 | | Date Analyzed: 2006-12-08 | | Analyzed By: | JR |
| Prep Batch: 28716 | | QC Preparation: 2006-12-08 | | Prepared By: | JR |
| • | | | | | |
| Parameter | Flag | MDL Result | Units | | RL |
| Nitrite-N | 1 105 | <0.0168 | mg/L | | 0.1 |
| | | | | | |
| Method Blank (1) | QC Batch: 33039 | | | | |
| QC Batch: 33039 |) | Date Analyzed: 2006-12-08 | | Analyzed By: | JR |
| Prep Batch: 28716 | | QC Preparation: 2006-12-08 | | Prepared By: | JR |
| • | | MYN | | | |
| Parameter | Flag | MDL Result | Units | | RL |
| Nitrate-N | 1 lag | < 0.0168 | mg/L | | 0.1 |
| | | | | | |
| Method Blank (1) | QC Batch: 33039 | | | | |
| QC Batch: 33039 |) | Date Analyzed: 2006-12-08 | | Analyzed By: | JR |
| Prep Batch: 28710 | 5 | QC Preparation: 2006-12-08 | | Prepared By: | JR |
| | | MDL | | | |
| Parameter | Flag | Result | Units | | RL |
| Chloride | | < 0.0257 | mg/L | | 2 |
| Fluoride Sulfate | | <0.0168 <0.0598 | mg/L mg/L | | 0.2 |
| Suitate | | \(\tau_0.0070\) | 1118/12 | | |
| Dunlington (1) | | | | | |
| Duplicates (1) | | | | | |
| QC Batch: 32699 | | Date Analyzed: 2006-12-08 | | Analyzed By: | DR |
| Prep Batch: 2844 | S | QC Preparation: 2006-12-08 | | Prepared By: | DR |

Total Copper

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| | Duplicate | Sample | | | | | | RPD |
|--------------------------------------|-------------------------|-----------------------------------|----------------|-----------------|------------------|----------|----------------------|---------------|
| Param | Result | Result | | nits | Dilution | | | Limit |
| Specific Conductance | 13700 | 13700 | μΜΗ | OS/cm | 1 | (|) | 6.7 |
| Duplicates (1) | | | | | | | | |
| QC Batch: 32873 | | Date Analyzed: | 2006-12-13 | 3 | | An: | alyzed B | y: DR |
| Prep Batch: 28588 | | QC Preparation: | | | | | pared By | |
| | | | | | | | | |
| Param | Duplica Result | | | Inits | Dilution | RP | D | RPD |
| Total Dissolved Solids | 14100 | | | ng/L | 1 | 3 | | Limit 20 |
| Total Dissolved Bolles | 14100 | 1730 | 70 11 | ig/L | | | | |
| Duplicates (1) | | | | | | | | |
| QC Batch: 32902 | | Date Analyzed: | 2006-12-0 | 8 | | An | alyzed B | y: DR |
| Prep Batch: 28610 | | QC Preparation: | | | | | pared By | |
| | | | | | | | • | |
| | Duplicate | Sample | | | | | | RPD |
| Param | Result | Result | Units | D | ilution | RPD | | Limit |
| pH | 7.48 | 7.50 | s.u. | | 1 | 0 | | 20 |
| QC Batch: 32703 Prep Batch: 28457 | e (LCS-1) | Date Analyzed: QC Preparation: | | | | | alyzed B pared By | • |
| | LCS | | | Spike | Matri | | | Rec. |
| Param | Resul | · | Dil. | Amount | Resu | | | Limit |
| Ammonia-N | 4.93 | mg/L | <u>l</u> | 5.00 | < 0.82 | 20 99 |) | 66 - 122 |
| Percent recovery is based or | n the spike result. RPD | is based on the s | pike and spike | e duplicate i | result. | | | |
| | LCSD | | Spike | Matrix | | Rec. | | RPD |
| Param | Result | Units Dil. | Amount | Result | Rec. | Limit | RPD | Limit |
| Ammonia-N | 4.82 | mg/L l | 5.00 | < 0.820 | 96 | 66 - 122 | 2 | 20 |
| Percent recovery is based or | n the spike result. RPD | is based on the s | pike and spike | e duplicate i | result. | | | |
| Laboratory Control Spike | e (LCS-1) | | | | | | | |
| QC Batch: 32745 | | Date Analyzed: | 2006-12-1 | 2 | | An | alyzed E | By: RR |
| Prep Batch: 28447 | | QC Preparation | | | | | epared B | • |
| | | | | | | | | |
| Param | LCS Result | Units | Dil. A | Spike Amount | Matrix Result | Rec | | Rec. Limit |

< 0.00127

0.125

101

83.4 - 117

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

mg/L

0.126

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LCSD Spike Matrix Rec. RPD Param Result Dil. Result Units Amount Rec. Limit **RPD** Limit Total Copper 0.124 mg/L 0.125 < 0.00127 99 83.4 - 117 20 2

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

OC Batch: 32745 Prep Batch: 28447 Date Analyzed: 2006-12-12 QC Preparation: 2006-12-11

Analyzed By: RR Prepared By: TS

LCS Spike Matrix Rec. Param Result Units Dil. Amount Result Rec. Limit Total Phosphorous 0.479 mg/L 0.500 < 0.0229 96 87.3 - 114

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

| | LCSD | | | Spike | Matrix | | Rec. | | RPD |
|-------------------|--------|-------|------|--------|----------|------|------------|-----|-------|
| Param | Result | Units | Dil. | Amount | Result | Rec. | Limit | RPD | Limit |
| Total Phosphorous | 0.453 | mg/L | 1 | 0.500 | < 0.0229 | 91 | 87.3 - 114 | 6 | 20 |

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

OC Batch:

32745

Date Analyzed:

2006-12-12

Analyzed By:

Prep Batch:

28447

QC Preparation: 2006-12-11 Prepared By: TS

RR

| | LCS | | | Spike | Matrix | | Rec. |
|------------|--------|-------|------|--------|------------|------|------------|
| Param | Result | Units | Dil. | Amount | Result | Rec. | Limit |
| Total Zinc | 0.247 | mg/L | 1 | 0.250 | < 0.000666 | 99 | 82.9 - 109 |

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

| | LCSD | | | Spike | Matrix | | Rec. | | RPD |
|------------|--------|-------|------|--------|------------|------|------------|-----|-------|
| Param | Result | Units | Dil. | Amount | Result | Rec. | Limit | RPD | Limit |
| Total Zinc | 0.243 | mg/L | 1 | 0.250 | < 0.000666 | 97 | 82.9 - 109 | 2 | 20 |

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 32745 Prep Batch: 28447 Date Analyzed: 2006-12-12 QC Preparation:

2006-12-11

Analyzed By: RR Prepared By: TS

LCS Spike Matrix Rec. Param Result Units Dil. Amount Result Limit Rec. Total Silver 87.9 - 111 0.125 mg/L 0.125 < 0.000274 1 100 Total Arsenic 0.491 mg/L 0.500 98 86.8 - 108 ì < 0.00489 Total Barium 1.01 mg/L 1 1.00 < 0.000450 101 88.8 - 110 Total Cadmium 0.250 mg/L Ì 0.250 < 0.000268 100 86.8 - 110 Total Chromium 0.112 mg/L 1 0.100 112 86.5 - 115 < 0.00357 Total Lead 0.486 mg/L 1 0.500 < 0.0031097 83 - 109 Total Sclenium 0.464 mg/L 1 0.500 < 0.00556 93 75 - 112

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Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

| | LCSD | | | Spike | Matrix | | Rec. | | RPD |
|----------------|--------|-------|------|--------|------------|------|------------|-----|-------|
| Param | Result | Units | Dil. | Amount | Result | Rec. | Limit | RPD | Limit |
| Total Silver | 0.123 | mg/L | 1 | 0.125 | < 0.000274 | 98 | 87.9 - 111 | 2 | 20 |
| Total Arsenic | 0.482 | mg/L | 1 | 0.500 | < 0.00489 | 96 | 86.8 - 108 | 2 | 20 |
| Total Barium | 1.01 | mg/L | 1 | 1.00 | < 0.000450 | 101 | 88.8 - 110 | 0 | 20 |
| Total Cadmium | 0.249 | mg/L | 1 | 0.250 | < 0.000268 | 100 | 86.8 - 110 | 0 | 20 |
| Total Chromium | 0.110 | mg/L | 1 | 0.100 | < 0.00357 | 110 | 86.5 - 115 | 2 | 20 |
| Total Lead | 0.476 | mg/L | 1 | 0.500 | < 0.00310 | 95 | 83 - 109 | 2 | 20 |
| Total Selenium | 0.413 | mg/L | 1 | 0.500 | < 0.00556 | 83 | 75 - 112 | 12 | 20 |

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 32815 Prep Batch: 28548 Date Analyzed: 2006-12-12 QC Preparation: 2006-12-12 Analyzed By: JG Prepared By: JG

| | LCS | | | Spike | Matrix | | Rec. |
|-----------------------|--------|----------------|------|--------|----------|------|------------|
| Param | Result | Units | Dil. | Amount | Result | Rec. | Limit |
| 1,1-Dichloroethene | 50.5 | μg/L | 1 | 50.0 | < 0.0736 | 101 | 83.4 - 114 |
| Benzene | 51.9 | μ g/L | 1 | 50.0 | < 0.0495 | 104 | 83.5 - 115 |
| Trichloroethene (TCE) | 51.7 | μ g/L | 1 | 50.0 | < 0.0495 | 103 | 91.3 - 111 |
| Toluene | 46.9 | μ g/L | 1 | 50.0 | < 0.0736 | 94 | 82 - 110 |
| Chlorobenzene | 49.0 | $\mu { m g/L}$ | 1 | 50.0 | < 0.0217 | 98 | 87.9 - 109 |

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

| | LCSD | | | Spike | Matrix | | Rec. | | RPD |
|-----------------------|--------|-----------|------|--------|----------|------|------------|-----|-------|
| Param | Result | Units | Dil. | Amount | Result | Rec. | Limit | RPD | Limit |
| 1,1-Dichloroethene | 49.9 | μg/L | l | 50.0 | < 0.0736 | 100 | 83.4 - 114 | 1 | 20 |
| Benzene | 51.6 | μ g/L | 1 | 50.0 | < 0.0495 | 103 | 83.5 - 115 | 1 | 20 |
| Trichloroethene (TCE) | 51.6 | μ g/L | 1 | 50.0 | < 0.0495 | 103 | 91.3 - 111 | 0 | 20 |
| Toluene | 47.1 | μ g/L | 1 | 50.0 | < 0.0736 | 94 | 82 - 110 | 0 | 20 |
| Chlorobenzene | 49.3 | μ g/L | 1 | 50.0 | < 0.0217 | 99 | 87.9 - 109 | 1 | 20 |

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

| Surrogate | LCS Result | LCSD Result | Units | Dil. | Spike Amount | LCS Rec. | LCSD Rec. | Rec. Limit |
|------------------------------|---------------|----------------|-----------------------------|------|-----------------|-------------|--------------|---------------|
| Dibromofluoromethane | 50.0 | 49.4 | μg/L | 1 | 50.0 | 100 | 99 | 82.4 - 115 |
| Toluene-d8 | 49.6 | 49.8 | μg/L | 1 | 50.0 | 99 | 100 | 89.7 - 108 |
| 4-Bromofluorobenzene (4-BFB) | 49.8 | 49.1 | $\mu \mathrm{g}/\mathrm{L}$ | 1 | 50.0 | 100 | 98 | 84.6 - 114 |

Laboratory Control Spike (LCS-1)

QC Batch: 32825 Prep Batch: 28447 Date Analyzed: 2006-12-14 QC Preparation: 2006-12-11

Analyzed By: RR Prepared By: TS

| | LCS | | | Spike | Matrix | | Rec. |
|--------------|--------|-------|------|--------|----------|------|------------|
| Param | Result | Units | Dil. | Amount | Result | Rec. | Limit |
| Total Sodium | 58.7 | mg/L | l | 50.0 | < 0.0309 | 117 | 87.1 - 120 |

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| | LCSD | | | Spike | Matrix | | Rec. | | RPD |
|--------------|--------|-------|------|--------|----------|------|------------|-----|-------|
| Param | Result | Units | Dil. | Amount | Result | Rec. | Limit | RPD | Limit |
| Total Sodium | 56.8 | mg/L | 1 | 50.0 | < 0.0309 | 114 | 87.1 - 120 | 3 | 20 |

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 32862 Prep Batch: 28579 Date Analyzed: QC Preparation:

2006-12-15 2006-12-15 Analyzed By: TS Prepared By:

LCS Spike Matrix Rec. Param Result Units Dil. Amount Result Rec. Limit < 0.0000217 mg/L 0.00100 95 89.4 - 108 0.000950 Total Mercury

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

| | LCSD | | | Spike | Matrix | | Rec. | | RPD |
|---------------|----------|-------|------|---------|-------------|------|------------|-----|-------|
| Param | Result | Units | Dil. | Amount | Result | Rec. | Limit | RPD | Limit |
| Total Mercury | 0.000960 | mg/L | 1 | 0.00100 | < 0.0000217 | 96 | 89.4 - 108 | 1 | 20 |

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: Prep Batch: 28580

32864

Date Analyzed: QC Preparation:

2006-12-15 2006-12-15

Analyzed By:

TS TS Prepared By:

LCS Spike Matrix Rec. Result Limit Result Amount Rec. Units Dil. Param 0.000970 0.00100 < 0.0000329 97 85 - 114 Dissolved Mercury mg/L

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

| | LCSD | | | Spike | Matrix | | Rec. | | RPD |
|-------------------|----------|-------|------|---------|-------------|------|----------|-----|-------|
| Param | Result | Units | Dil. | Amount | Result | Rec. | Limit | RPD | Limit |
| Dissolved Mercury | 0.000970 | mg/L | 1 | 0.00100 | < 0.0000329 | 97 | 85 - 114 | 0 | 20 |

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch:

32921

Date Analyzed:

2006-12-18

Analyzed By: RR

TS

Prep Batch: 28533

QC Preparation:

2006-12-13

Prepared By:

| | LCS | | | Spike | Matrix | | Rec. |
|------------------|--------|-------|------|--------|------------|------|------------|
| Param | Result | Units | Dil. | Amount | Result | Rec. | Limit |
| Dissolved Silver | 0.133 | mg/L | 1 | 0.125 | < 0.000199 | 106 | 86.2 - 116 |

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

| | LCSD | | | Spike | Matrix | | Rec. | | RPD |
|------------------|--------|-------|------|--------|------------|------|------------|-----|-------|
| Param | Result | Units | Dil. | Amount | Result | Rec. | Limit | RPD | Limit |
| Dissolved Silver | 0.129 | mg/L | 1 | 0.125 | < 0.000199 | 103 | 86.2 - 116 | 3 | 20 |

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Laboratory Control Spike (LCS-1)

OC Batch: 32921 Prep Batch: 28533

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Date Analyzed: QC Preparation:

2006-12-18 2006-12-13

Analyzed By: RR TS

Prepared By:

LCS Spike Matrix Rec. Param Result Units Dil. Amount Result Rec. Limit < 0.00360 78.7 - 116 Dissolved Arsenic 0.505 mg/L 0.500 101

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

| | LCSD | | | Spike | Matrix | | Rec. | | RPD |
|-------------------|--------|-------|------|--------|-----------|------|------------|-----|-------|
| Param | Result | Units | Dil. | Amount | Result | Rec. | Limit | RPD | Limit |
| Dissolved Arsenic | 0.535 | mg/L | 1 | 0.500 | < 0.00360 | 107 | 78.7 - 116 | 6 | 20 |

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

OC Batch: 32921 Date Analyzed: 2006-12-18 2006-12-13 Analyzed By: RR Prepared By: TS

Prep Batch: 28533 QC Preparation:

LCS Spike Matrix Rec. Param Result Units Dil. Amount Result Rec. Limit < 0.000450 Dissolved Barium 0.947 mg/L 1.00 95 85 - 114

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

| | LCSD | | | Spike | Matrix | | Rec. | | RPD |
|------------------|--------|-------|------|--------|------------|------|----------|-----|-------|
| Param | Result | Units | Dil. | Amount | Result | Rec. | Limit | RPD | Limit |
| Dissolved Barium | 0.979 | mg/L | ĺ | 1.00 | < 0.000450 | 98 | 85 - 114 | 3 | 20 |

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

OC Batch: 32921 Prep Batch: 28533 Date Analyzed: 2006-12-18 QC Preparation: 2006-12-13

Analyzed By: RR Prepared By: TS

LCS Spike Matrix Rec. Units Result Rec. Limit Param Result Dil. Amount < 0.000577 Dissolved Cadmium 0.237 0.250 95 83.3 - 113 mg/L

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

| | LCSD | | | Spike | Matrix | | Rec. | | RPD |
|-------------------|--------|-------|------|--------|------------|------|------------|-----|-------|
| Param | Result | Units | Dil. | Amount | Result | Rec. | Limit | RPD | Limit |
| Dissolved Cadmium | 0.244 | mg/L | ì | 0.250 | < 0.000577 | 98 | 83.3 - 113 | 3 | 20 |

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

OC Batch: 32921 Prep Batch: 28533 Date Analyzed: 2006-12-18 QC Preparation: 2006-12-13 Analyzed By: RR Prepared By: TS

LCS Spike Matrix Rec. Param Result Units Dil. Amount Result Limit Rec. Dissolved Chromium 0.0980 < 0.00357mg/L 0.100 98 83 - 112

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

| | LCSD | | | Spike | Matrix | | Rec. | | RPD |
|--------------------|--------|-------|------|--------|-----------|------|----------|-----|-------|
| Param | Result | Units | Dil. | Amount | Result | Rec. | Limit | RPD | Limit |
| Dissolved Chromium | 0.0980 | mg/L | 1 | 0.100 | < 0.00357 | 98 | 83 - 112 | 0 | 20 |

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 32921 Prep Batch: 28533 Date Analyzed: QC Preparation:

2006-12-18 2006-12-13

Analyzed By: RR

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Prepared By:

| | LCS | | | Spike | Matrix | | Rec. |
|------------------|--------|-------|------|--------|-----------|------|------------|
| Param | Result | Units | Dil. | Amount | Result | Rec. | Limit |
| Dissolved Copper | 0.121 | mg/L | 1 | 0.125 | < 0.00127 | 97 | 84.3 - 114 |

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

| | LCSD | | | Spike | Matrix | | Rec. | | RPD |
|------------------|--------|-------|------|--------|-----------|------|------------|-----|-------|
| Param | Result | Units | Dil. | Amount | Result | Rec. | Limit | RPD | Limit |
| Dissolved Copper | 0.125 | mg/L | 1 | 0.125 | < 0.00127 | 100 | 84.3 - 114 | 3 | 20 |

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 32921 Prep Batch: 28533 Date Analyzed: QC Preparation:

2006-12-18 2006-12-13 Analyzed By: RR

Prepared By: TS

| | LCS | | | Spike | Matrix | | Rec. |
|----------------|--------|-------|------|--------|-----------|------|------------|
| Param | Result | Units | Dil. | Amount | Result | Rec. | Limit |
| Dissolved Lead | 0.512 | mg/L | 1 | 0.500 | < 0.00398 | 102 | 81.1 - 111 |

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

| | LCSD | | | Spike | Matrix | | Rec. | | RPD |
|----------------|--------|-------|------|--------|-----------|------|------------|-----|-------|
| Param | Result | Units | Dil. | Amount | Result | Rec. | Limit | RPD | Limit |
| Dissolved Lead | 0.518 | mg/L | i | 0.500 | < 0.00398 | 104 | 81.1 - 111 | 1 | 20 |

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 32921 Prep Batch: 28533 Date Analyzed: 2006-12-18 QC Preparation: 2006-12-13 Analyzed By: RRPrepared By: TS

LCS Spike Matrix Rec. Param Result Units Dil. Amount Result Rec. Limit Dissolved Selenium 0.419 < 0.00556 84 69.6 - 111 mg/L 0.500

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| | LCSD | | | Spike | Matrix | | Rec. | | RPD |
|--------------------|--------|-------|------|--------|-----------|------|------------|-----|-------|
| Param | Result | Units | Dil. | Amount | Result | Rec. | Limit | RPD | Limit |
| Dissolved Selenium | 0.461 | mg/L | 1 | 0.500 | < 0.00556 | 92 | 69.6 - 111 | 10 | 20 |

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 32921 Prep Batch: 28533 Date Analyzed: 2006-12-18 QC Preparation: 2006-12-13 Analyzed By: RR Prepared By:

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LCS Matrix Spike Rec. Param Result Units Dil. Amount Result Rec. Limit Dissolved Zinc 0,222 mg/L 0.250 < 0.00300 89 84.7 - 113

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

| | LCSD | | | Spike | Matrix | | Rec. | | RPD |
|----------------|--------|-------|------|--------|-----------|------|------------|-----|-------|
| Param | Result | Units | Dil. | Amount | Result | Rec. | Limit | RPD | Limit |
| Dissolved Zinc | 0.226 | mg/L | 1 | 0.250 | < 0.00300 | 90 | 84.7 - 113 | 2 | 20 |

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 32942 Date Analyzed: 2006-12-19 Analyzed By: RR

Prep Batch: 28533

QC Preparation: 2006-12-13

Prepared By: TS

| | LCS | | | Spike | Matrix | | Rec. |
|------------------|--------|-------|------|--------|----------|------|----------|
| Param | Result | Units | Dil. | Amount | Result | Rec. | Limit |
| Dissolved Sodium | 45.1 | mg/L | i | 50.0 | < 0.0309 | 90 | 85 - 115 |

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

| | LCSD | | | Spike | Matrix | | Rec. | | RPD |
|------------------|--------|-------|------|--------|----------|------|----------|-----|-------|
| Param | Result | Units | Dil. | Amount | Result | Rec. | Limit | RPD | Limit |
| Dissolved Sodium | 49.0 | mg/L | 1 | 50.0 | < 0.0309 | 98 | 85 - 115 | 8 | 20 |

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 33039 Prep Batch: 28716 Date Analyzed: 2006-12-08 QC Preparation: 2006-12-08

Analyzed By: JR Prepared By: JR

LCS Spike Matrix Rec. Param Result Units Dil. Amount Result Rec. Limit Bromide 2.47 mg/L 2.50 < 0.0217 99 90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

| | LCSD | | | Spike | Matrix | | Rec. | | RPD |
|---------|--------|-------|------|--------|----------|------|----------|-----|-------|
| Param | Result | Units | Dil. | Amount | Result | Rec. | Limit | RPD | Limit |
| Bromide | 2.49 | mg/L | 1 | 2.50 | < 0.0217 | 100 | 90 - 110 |] | 20 |

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Laboratory Control Spike (LCS-1)

QC Batch: 33039 Prep Batch: 28716

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Date Analyzed: QC Preparation:

2006-12-08 2006-12-08 Analyzed By: JR

Prepared By: JJ

| | LCS | | | Spike | Matrix | | Rec. |
|-----------|--------|-------|------|--------|----------|------|----------|
| Param | Result | Units | Dil. | Amount | Result | Rec. | Limit |
| Nitrite-N | 2.52 | mg/L | 1 | 2.50 | < 0.0168 | 101 | 90 - 110 |

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

| | LCSD | | | Spike | Matrix | | Rec. | | RPD |
|-----------|--------|-------|------|--------|----------|------|----------|-----|-------|
| Param | Result | Units | Dil. | Amount | Result | Rec. | Limit | RPD | Limit |
| Nitrite-N | 2,52 | mg/L | 1 | 2.50 | < 0.0168 | 101 | 90 - 110 | 0 | 20 |

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 33039 Prep Batch: 28716 Date Analyzed:

2006-12-08

Analyzed By: JR

QC Preparation: 2006-12-08

Prepared By: JR

| | LCS | | | Spike | Matrix | | Rec. |
|-----------|--------|-------|------|--------|----------|------|----------|
| Param | Result | Units | Dil. | Amount | Result | Rec. | Limit |
| Nitrate-N | 2.50 | mg/L | 1 | 2.50 | < 0.0168 | 100 | 90 - 110 |

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

| | LCSD | | | Spike | Matrix | | Rec. | | RPD |
|-----------|--------|-------|------|--------|----------|------|----------|-----|-------|
| Param | Result | Units | Dil. | Amount | Result | Rec. | Limit | RPD | Limit |
| Nitrate-N | 2.50 | mg/L | 1 | 2.50 | < 0.0168 | 100 | 90 - 110 | 0 | 20 |

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 33039 Prep Batch: 28716 Date Analyzed: 2
QC Preparation: 2

2006-12-08 2006-12-08 Analyzed By: JR Prepared By: JR

LCS Matrix Spike Rec. Param Result Units Dil. Amount Result Rec. Limit Chloride 97 12.1 mg/L 12.5 < 0.025790 - 110 Fluoride 2.49 1 2.50 100 mg/L < 0.0168 88.6 - 107 Sulfate 12.6 mg/L 1 12.5 < 0.0598 101 90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

| | LCSD | | | Spike | Matrix | | Rec. | | RPD |
|----------|--------|-------|------|--------|----------|------|------------|-----|-------|
| Param | Result | Units | Dil. | Amount | Result | Rec. | Limit | RPD | Limit |
| Chloride | 12.1 | mg/L | 1 | 12.5 | < 0.0257 | 97 | 90 - 110 | 0 | 20 |
| Fluoride | 2.49 | mg/L | 1 | 2.50 | < 0.0168 | 100 | 88.6 - 107 | 0 | 20 |
| Sulfate | 12.5 | mg/L | 1 | 12.5 | < 0.0598 | 100 | 90 - 110 | 1 | 20 |

HELSTF Groundwater Samples

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Matrix Spike (MS-1) Spiked Sample: 111247

OC Batch: 32703 Prep Batch: 28457 Date Analyzed: 2006-12-11 QC Preparation: 2006-12-11 Analyzed By: SM Prepared By: SM

MS Spike Matrix Rec. Result Units Dil. Result Rec. Limit Param Amount Ammonia-N 4.76 mg/L 5.00 < 0.820 95 58 - 134

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

MSD RPD Spike Matrix Rec. RPD Param Result Units Dil. Amount Result Rec. Limit Limit 4.87 5.00 < 0.820 97 58 - 134 2 20 Ammonia-N mg/L

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 111245

OC Batch: 32745 Date Analyzed: 2006-12-12

Analyzed By: RR

28447 Prep Batch:

QC Preparation: 2006-12-11 Prepared By: TS

| | MS | | | Spike | Matrix | | Rec. |
|--------------|--------|-------|------|--------|-----------|------|------------|
| Param | Result | Units | Dil. | Amount | Result | Rec. | Limit |
| Total Copper | 0.114 | mg/L | 1 | 0.125 | < 0.00127 | 91 | 83.8 - 118 |

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

| | MSD | | | Spike | Matrix | | Rec. | | RPD |
|--------------|--------|-------|------|--------|-----------|------|------------|-----|-------|
| Param | Result | Units | Dil. | Amount | Result | Rec. | Limit | RPD | Limit |
| Total Copper | 0.115 | mg/L | l | 0.125 | < 0.00127 | 92 | 83.8 - 118 | l | 20 |

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 111245

QC Batch: 32745 Prep Batch: 28447

2006-12-12 Date Analyzed: QC Preparation: 2006-12-11

Analyzed By: RR Prepared By: TS

MS Spike Matrix Rec. Param Result Units Dil. Amount Result Rec. Limit 0.500 < 0.0229 84 70.1 - 115 Total Phosphorous 0.422 mg/L

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

| | MSD | | | Spike | Matrix | | Rec. | | RPD |
|-------------------|--------|-------|------|--------|----------|------|------------|-----|-------|
| Param | Result | Units | Dil. | Amount | Result | Rec. | Limit | RPD | Limit |
| Total Phosphorous | 0.401 | mg/L | 1 | 0.500 | < 0.0229 | 80 | 70.1 - 115 | 5 | 20 |

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 111245

QC Batch: 32745 Prep Batch: 28447 Date Analyzed: 2006-12-12 QC Preparation: 2006-12-11

Analyzed By: RR Prepared By: TS

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| | MS | | | Spike | Matrix | | Rec. |
|------------|--------|-------|------|--------|------------|------|------------|
| Param | Result | Units | Dil. | Amount | Result | Rec. | Limit |
| Total Zinc | 0.216 | mg/L | 1 | 0.250 | < 0.000666 | 86 | 75.5 - 113 |

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

| | MSD | | | Spike | Matrix | | Rec. | | RPD |
|------------|--------|-------|------|--------|------------|------|------------|-----|-------|
| Param | Result | Units | Dil. | Amount | Result | Rec. | Limit | RPD | Limit |
| Total Zinc | 0.224 | mg/L | 1 | 0.250 | < 0.000666 | 90 | 75.5 - 113 | 4 | 20 |

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 111245

QC Batch: 32745 Prep Batch: 28447 Date Analyzed: 2006-12-12 QC Preparation: 2006-12-11 Analyzed By: RR Prepared By: TS

Matrix Rec. MS Spike Limit Param Result Units Dil. Amount Result Rec. 0.115 mg/L 0.125 < 0.000274 92 88.2 - 114 Total Silver 1 Total Arsenic 0.428 mg/L 1 0.500 < 0.00489 86 75.9 - 116 85 64.9 - 129 Total Barium 0.859 mg/L 1 1.00 0.005 74 66.5 - 121 Total Cadmium 0.185 mg/L į 0.250 < 0.000268 84 69.2 - 129 Total Chromium 0.0840 mg/L 1 0.100 < 0.00357 Total Lead 0.441 0.500 < 0.00310 88 71.9 - 115 mg/L1 0.500 92 66.8 - 116 Total Selenium 0.461 < 0.00556 mg/L 1

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

| Param | MSD Result | Units | Dil. | Spike Amount | Matrix Result | Rec. | Rec. Limit | RPD | RPD Limit |
|----------------|---------------|-------|------|-----------------|------------------|------|---------------|-----|--------------|
| Total Silver | 0.116 | mg/L | 1 | 0.125 | < 0.000274 | 93 | 88.2 - 114 | 1 | 20 |
| Total Arsenic | 0.442 | mg/L | l | 0.500 | < 0.00489 | 88 | 75.9 - 116 | 3 | 20 |
| Total Barium | 0.878 | mg/L | 1 | 1.00 | 0.005 | 87 | 64.9 - 129 | 2 | 20 |
| Total Cadmium | 0.203 | mg/L | 1 | 0.250 | < 0.000268 | 81 | 66.5 - 121 | 9 | 20 |
| Total Chromium | 0.0860 | mg/L | i | 0.100 | < 0.00357 | 86 | 69.2 - 129 | 2 | 20 |
| Total Lead | 0.449 | mg/L | 1 | 0.500 | < 0.00310 | 90 | 71.9 - 115 | 2 | 20 |
| Total Selenium | 0.479 | mg/L | 1 | 0.500 | < 0.00556 | 96 | 66.8 - 116 | 4 | 20 |

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 111245

QC Batch: 32815 Prep Batch: 28548 Date Analyzed: 2006-12-12 OC Preparation: 2006-12-12 Analyzed By: JG Prepared By: JG

| | MS | | | Spike | Matrix | | Rec. |
|-----------------------|--------|----------------|------|--------|----------|------|------------|
| Param | Result | Units | Dil. | Amount | Result | Rec. | Limit |
| 1,1-Dichloroethene | 51.3 | μg/L | 1 | 50.0 | < 0.0736 | 103 | 78.7 - 119 |
| Benzene | 53.1 | μ g/L | 1 | 50.0 | < 0.0495 | 106 | 75.8 - 125 |
| Trichloroethene (TCE) | 52.5 | $\mu { m g/L}$ |] | 50.0 | < 0.0495 | 105 | 83.6 - 112 |
| Toluene | 47.9 | μg/L | 1 | 50.0 | < 0.0736 | 96 | 81.6 - 115 |
| Chlorobenzene | 50.2 | μ g/L | 1 | 50.0 | < 0.0217 | 100 | 83.9 - 113 |

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| Param | MSD Result | Units | Dil. | Spike Amount | Matrix Result | Rec. | Rec. Limit | RPD | RPD Limit |
|-----------------------|---------------|--------------------|------|-----------------|------------------|------|---------------|-----|--------------|
| 1,1-Dichloroethene | 52.0 | μg/L | 1 | 50.0 | < 0.0736 | 104 | 78.7 - 119 | 1 | 20 |
| Benzene | 53.8 | $\mu { m g/L}$ | 1 | 50.0 | < 0.0495 | 108 | 75.8 - 125 | 1 | 20 |
| Trichloroethene (TCE) | 53.8 | μg/L | l | 50.0 | < 0.0495 | 108 | 83.6 - 112 | 2 | 20 |
| Toluene | 48.6 | μ g/L | 1 | 50.0 | < 0.0736 | 97 | 81.6 - 115 | 1 | 20 |
| Chlorobenzene | 50.9 | $\mu \mathrm{g/L}$ | 1 | 50.0 | < 0.0217 | 102 | 83.9 - 113 | 1 | 20 |

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

| | MS | MSD | | | Spike | MS | MSD | Rec. |
|------------------------------|--------|--------|--------------------|------|--------|------|------|------------|
| Surrogate | Result | Result | Units | Dil. | Amount | Rec. | Rec. | Limit |
| Dibromofluoromethane | 49.9 | 50.6 | μg/L | 1 | 50 | 100 | 101 | 86.6 - 114 |
| Toluene-d8 | 50.0 | 49.6 | $\mu \mathrm{g/L}$ | 1 | 50 | 100 | 99 | 91 - 109 |
| 4-Bromofluorobenzene (4-BFB) | 49.3 | 49.2 | μ g/L | i | 50 | 99 | 98 | 87.2 - 113 |

Matrix Spike (MS-1) Spiked Sample: 111245

QC Batch: 32825

Date Analyzed: 2006-12-14 Analyzed By: RR TS

Prep Batch: 28447

QC Preparation: 2006-12-11 Prepared By:

| | MS | | | Spike | Matrix | | Rec. |
|--------------|--------|-------|------|--------|--------|------|----------|
| Param | Result | Units | Dil. | Amount | Result | Rec. | Limit |
| Total Sodium | 2340 | mg/L | 1 | 50.0 | 2290 | 100 | 75 - 125 |

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

| | MSD | | | Spike | Matrix | | Rec. | | RPD |
|--------------|--------|-------|------|--------|--------|------|----------|-----|-------|
| Param | Result | Units | Dil. | Amount | Result | Rec. | Limit | RPD | Limit |
| Total Sodium | 2340 | mg/L | 1 | 50.0 | 2290 | 100 | 75 - 125 | 0 | 20 |

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Spiked Sample: 111036 Matrix Spike (MS-1)

QC Batch: 32862 Prep Batch: 28579 Date Analyzed: 2006-12-15 QC Preparation: 2006-12-15 Analyzed By: TS Prepared By: TS

| | MS | | | Spike | Matrix | | Rec. |
|---------------|----------|-------|------|---------|--------|------|------------|
| Param | Result | Units | Dil. | Amount | Result | Rec. | Limit |
| Total Mercury | 0.000960 | mg/L | 1 | 0.00100 | 5e-05 | 91 | 49.1 - 137 |

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

| | MSD | | | Spike | Matrix | | Rec. | | RPD |
|---------------|----------|-------|------|---------|--------|------|------------|-----|-------|
| Param | Result | Units | Dil. | Amount | Result | Rec. | Limit | RPD | Limit |
| Total Mercury | 0.000660 | mg/L | 1 | 0.00100 | 5e-05 | 61 | 49.1 - 137 | 37 | 20 |

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 111245

QC Batch: 32864 Date Analyzed:

2006-12-15

Analyzed By: TS TS

Prep Batch: 28580

QC Preparation: 2006-12-15

Prepared By:

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| | MS | | | Spike | Matrix | | Rec. |
|-------------------|---------|-------|------|---------|-------------|------|----------|
| Param | Result | Units | Dil. | Amount | Result | Rec. | Limit |
| Dissolved Mercury | 0.00104 | mg/L | 1 | 0.00100 | < 0.0000329 | 104 | 75 - 125 |

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

| | MSD | | | Spike | Matrix | | Rec. | | RPD |
|-------------------|----------|-------|------|---------|-------------|------|----------|-----|-------|
| Param | Result | Units | Dil. | Amount | Result | Rec. | Limit | RPD | Limit |
| Dissolved Mercury | 0.000980 | mg/L | 1 | 0.00100 | < 0.0000329 | 98 | 75 - 125 | 6 | 20 |

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 111243

QC Batch: 32921 Prep Batch: 28533 Date Analyzed: 2006-12-18 QC Preparation: 2006-12-13 Analyzed By: RRPrepared By: TS

MS Spike Matrix Rec. Param Amount Result Limit Result Units Dil. Rec. < 0.000199 Dissolved Silver 0.119 0.125 95 90.1 - 120 mg/L

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

| | MSD | | | Spike | Matrix | | Rec. | | RPD |
|------------------|--------|-------|------|--------|------------|------|------------|-----|-------|
| Param | Result | Units | Dil. | Amount | Result | Rec. | Limit | RPD | Limit |
| Dissolved Silver | 0.118 | mg/L | 1 | 0.125 | < 0.000199 | 94 | 90.1 - 120 | 1 | 20 |

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 111243

QC Batch: 32921 Prep Batch: 28533 Date Analyzed: 2006-12-18 QC Preparation: 2006-12-13

Analyzed By: RR Prepared By: TS

MS Matrix Rec. Spike Param Result Units Dil. Result Limit Amount Rec. < 0.00360 Dissolved Arsenic 0.472 mg/L 0.500 94 75 - 114

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

| | MSD | | | Spike | Matrix | | Rec. | | RPD |
|-------------------|--------|-------|------|--------|-----------|------|----------|-----|-------|
| Param | Result | Units | Dil. | Amount | Result | Rec. | Limit | RPD | Limit |
| Dissolved Arsenic | 0.426 | mg/L | 1 | 0.500 | < 0.00360 | 85 | 75 - 114 | 10 | 20 |

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 111243

QC Batch: 32921 Prep Batch: 28533

Dissolved Barium

Date Analyzed: 2006-12-18 QC Preparation: 2006-12-13

Analyzed By: RR Prepared By: TS

75 - 125

90

MS Spike Matrix Rec. Param Result Units Dil. Result Rec. Limit Amount

mg/L

1.00

< 0.000450

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

0.897

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| | MSD | | | Spike | Matrix | | Rec. | | RPD |
|------------------|--------|-------|------|--------|------------|------|----------|-----|-------|
| Param | Result | Units | Dil. | Amount | Result | Rec. | Limit | RPD | Limit |
| Dissolved Barium | 0.881 | mg/L | 1 | 1.00 | < 0.000450 | 88 | 75 - 125 | 2 | 20 |

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 111243

QC Batch: 32921 Prep Batch: 28533 Date Analyzed: 2006-12-18 QC Preparation: 2006-12-13

Analyzed By: RR Prepared By:

| | MS | | | Spike | Matrix | | Rec. |
|-------------------|--------|-------|------|--------|------------|------|----------|
| Param | Result | Units | Dil. | Amount | Result | Rec. | Limit |
| Dissolved Cadmium | 0.226 | mg/L | 1 | 0.250 | < 0.000577 | 90 | 75 - 112 |

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

| | MSD | | | Spike | Matrix | | Rec. | | RPD |
|-------------------|--------|-------|------|--------|------------|------|----------|-----|-------|
| Param | Result | Units | Dil. | Amount | Result | Rec. | Limit | RPD | Limit |
| Dissolved Cadmium | 0.232 | mg/L | 1 | 0.250 | < 0.000577 | 93 | 75 - 112 | 3 | 20 |

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 111243

QC Batch: 32921 Prep Batch: 28533 Date Analyzed: 2006-12-18 QC Preparation: 2006-12-13

Analyzed By: RR Prepared By: TS

| | MS | | | Spike | Matrix | | Rec. |
|--------------------|--------|-------|------|--------|-----------|------|----------|
| Param | Result | Units | Dil. | Amount | Result | Rec. | Limit |
| Dissolved Chromium | 0.0870 | mg/L | j | 0.100 | < 0.00357 | 87 | 75 - 121 |

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

| | MSD | | | Spike | Matrix | | Rec. | | RPD |
|--------------------|--------|-------|------|--------|-----------|------|----------|-----|-------|
| Param | Result | Units | Dil. | Amount | Result | Rec. | Limit | RPD | Limit |
| Dissolved Chromium | 0.0860 | mg/L | 1 | 0.100 | < 0.00357 | 86 | 75 - 121 | 1 | 20 |

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-I) Spiked Sample: 111243

QC Batch: 32921 Prep Batch: 28533 Date Analyzed: 2006-12-18 QC Preparation: 2006-12-13 Analyzed By: RR Prepared By: TS

| | MS | | | Spike | Matrix | | Rec. |
|------------------|--------|-------|------|--------|--------|------|------------|
| Param | Result | Units | Dil. | Amount | Result | Rec. | Limit |
| Dissolved Copper | 0.116 | mg/L | 1 | 0.125 | 0.006 | 88 | 81.5 - 125 |

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

| | MSD | | | Spike | Matrix | | Rec. | | RPD |
|------------------|--------|-------|------|--------|--------|------|------------|-----|-------|
| Param | Result | Units | Dil. | Amount | Result | Rec. | Limit | RPD | Limit |
| Dissolved Copper | 0.120 | mg/L |] | 0.125 | 0.006 | 91 | 81.5 - 125 | 3 | 20 |

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Matrix Spike (MS-1)

Spiked Sample: 111243

OC Batch: Prep Batch:

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32921 28533 Date Analyzed: QC Preparation:

2006-12-18

2006-12-13

Analyzed By: RR

Prepared By: TS

MS Spike Matrix Rec. Dil. Result Limit Param Result Units Amount Rec. 75 - 111 Dissolved Lead 0.473 mg/L 0.500 < 0.00398 95

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

| | MSD | | | Spike | Matrix | | Rec. | | RPD |
|----------------|--------|-------|------|--------|-----------|------|----------|-----|-------|
| Param | Result | Units | Dil. | Amount | Result | Rec. | Limit | RPD | Limit |
| Dissolved Lead | 0.446 | mg/L | 1 | 0.500 | < 0.00398 | 89 | 75 - 111 | 6 | 20 |

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1)

Spiked Sample: 111243

OC Batch: 32921 Prep Batch: 28533

Date Analyzed: QC Preparation:

2006-12-18 2006-12-13 Analyzed By: RR

Prepared By: TS

MS Spike Matrix Rec. Param Result Units Dil. Result Limit Amount Rec. Dissolved Selenium 0.407 0.500 < 0.00556 81 75 - 118 mg/L

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

| | MSD | | | Spike | Matrix | | Rec. | | RPD |
|--------------------|--------|-------|------|--------|-----------|------|----------|-----|-------|
| Param | Result | Units | Dil. | Amount | Result | Rec. | Limit | RPD | Limit |
| Dissolved Selenium | 0.426 | mg/L | 1 | 0.500 | < 0.00556 | 85 | 75 - 118 | 5 | 20 |

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 111243

OC Batch:

32921

Date Analyzed:

2006-12-18

Analyzed By:

RR Prepared By: T\$

Prep Batch:

28533

QC Preparation:

2006-12-13

MS Matrix Rec. Spike Param Result Units Dil. Amount Result Rec. Limit < 0.00300 94 80.4 ~ 120 Dissolved Zinc 0.236 mg/L 0.250

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

| | MSD | | | Spike | Matrix | | Rec. | | RPD |
|----------------|--------|-------|------|--------|-----------|------|------------|-----|-------|
| Param | Result | Units | Dil. | Amount | Result | Rec. | Limit | RPD | Limit |
| Dissolved Zinc | 0.238 | mg/L | 1 | 0.250 | < 0.00300 | 95 | 80.4 - 120 | 1 | 20 |

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1)

Spiked Sample: 111243

QC Batch: 32942 Date Analyzed: 2006-12-19

Analyzed By: RR Prepared By: TS

Prep Batch: 28533

QC Preparation:

2006-12-13

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| | MS | | | Spike | Matrix | | Rec. |
|------------------|--------|-------|------|--------|--------|------|----------|
| Param | Result | Units | Dil. | Amount | Result | Rec. | Limit |
| Dissolved Sodium | 10900 | mg/L | 1 | 50.0 | 10870 | 60 | 75 - 125 |

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

| | | MSD | | | Spike | Matrix | | Rec. | | RPD |
|------------------|---|--------|-------|------|--------|--------|------|----------|-----|-------|
| Param | | Result | Units | Dil. | Amount | Result | Rec. | Limit | RPD | Limit |
| Dissolved Sodium | 2 | 10900 | mg/L | 1 | 50.0 | 10870 | 60 | 75 - 125 | 0 | 20 |

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 111245

QC Batch: 33039 Date Analyzed:

2006-12-08

Analyzed By: JR

Prep Batch: 28716

QC Preparation:

2006-12-08

Prepared By: JR

MS Spike Matrix Rec. Param Result Units Dil. Amount Result Rec. Limit 1250 1250 Bromide 500 <10.8 100 90 - 110 mg/L

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

| | MSD | | | Spike | Matrix | | Rec. | | RPD |
|---------|--------|-------|------|--------|--------|------|----------|-----|-------|
| Param | Result | Units | Dil. | Amount | Result | Rec. | Limit | RPD | Limit |
| Bromide | 1280 | mg/L | 500 | 1250 | <10.8 | 102 | 90 - 110 | 2 | 20 |

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 111245

OC Batch: 33039 Date Analyzed:

2006-12-08

Analyzed By: JR

Prep Batch: 28716

QC Preparation: 2006-12-08 Prepared By: JR

| | MS | | | Spike | Matrix | | Rec. |
|-----------|--------|-------|------|--------|--------|------|----------|
| Param | Result | Units | Dil. | Amount | Result | Rec. | Limit |
| Nitrite-N | 1280 | mg/L | 500 | 1250 | < 8.40 | 102 | 90 - 110 |

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

| | MSD | | | Spike | Matrix | | Rec. | | RPD |
|-----------|--------|-------|------|--------|--------|------|----------|-----|-------|
| Param | Result | Units | Dil. | Amount | Result | Rec. | Limit | RPD | Limit |
| Nitrite-N | 1270 | mg/L | 500 | 1250 | < 8.40 | 102 | 90 - 110 | 1 | 20 |

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 111245

QC Batch: 33039 Date Analyzed:

2006-12-08

Analyzed By: JR

Prep Batch: 28716

QC Preparation:

2006-12-08

Prepared By: JR

¹Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.

²Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.

Work Order: 6121108

HELSTF Groundwater Samples

| | MS | | | Spike | Matrix | | Rec. |
|-----------|--------|-------|------|--------|--------|------|------------|
| Param | Result | Units | Dil. | Amount | Result | Rec. | Limit |
| Nitrate-N | 1320 | mg/L | 500 | 1250 | 171 | 92 | 78.6 - 105 |

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

| | MSD | | | Spike | Matrix | | Rec. | | RPD |
|-----------|--------|-------|------|--------|--------|------|------------|-----|-------|
| Param | Result | Units | Dil. | Amount | Result | Rec. | Limit | RPD | Limit |
| Nitrate-N | 1310 | mg/L | 500 | 1250 | 171 | 91 | 78.6 - 105 | 1 | 20 |

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 111245

QC Batch: 33039 Prep Batch: 28716 Date Analyzed: 2006-12-08 QC Preparation: 2006-12-08 Analyzed By: JR Prepared By: JR

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MS Matrix Spike Rec. Param Result Units Dil. Amount Result Rec. Limit Chloride 8140 500 6250 2240 94 90 - 110 mg/L 100 Fluoride 1250 mg/L 500 1250 < 8.4089.9 - 104 500 6250 6470 98 90 - 110Sulfate 12600 mg/L

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

| | MSD | | | Spike | Matrix | | Rec. | | RPD |
|----------|--------|-------|------|--------|--------|------|------------|-----|-------|
| Param | Result | Units | Dil. | Amount | Result | Rec. | Limit | RPD | Limit |
| Chloride | 8120 | mg/L | 500 | 6250 | 2240 | 94 | 90 - 110 | 0 | 20 |
| Fluoride | 1250 | mg/L | 500 | 1250 | < 8.40 | 100 | 89.9 - 104 | 0 | 20 |
| Sulfate | 12500 | mg/L | 500 | 6250 | 6470 | 96 | 90 - 110 | 1 | 20 |

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Standard (ICV-1)

QC Batch: 32699

Date Analyzed: 2006-12-08

Analyzed By: DR

| | | | ICVs | ICVs | ICVs | Percent | |
|----------------------|------|----------|-------|-------|----------|------------|------------|
| | | | True | Found | Percent | Recovery | Date |
| Param | Flag | Units | Conc. | Conc. | Recovery | Limits | Analyzed |
| Specific Conductance | | μMHOS/cm | 1410 | 1410 | 100 | 96.7 - 108 | 2006-12-08 |

Standard (CCV-1)

QC Batch: 32699

Date Analyzed: 2006-12-08

Analyzed By: DR

| | | | CCVs | CCVs | CCVs | Percent | Dota |
|----------------------|------|----------|-------|-------|----------|------------|------------|
| | | | True | Found | Percent | Recovery | Date |
| Param | Flag | Units | Conc. | Conc. | Recovery | Limits | Analyzed |
| Specific Conductance | | μMHOS/cm | 1410 | 1410 | 100 | 96.7 - 108 | 2006-12-08 |

Standard (ICV-1)

QC Batch: 32703

Date Analyzed: 2006-12-11

Analyzed By: SM

Total Barium

Work Order: 6121108 HELSTF Groundwater Samples Page Number: 34 of 43

| <u>′</u> | | | HELSIF | Groundwater 5 | ampies | | |
|-----------------------------------|-------|---------------|-----------------------|------------------------|-----------------------------|-------------------------------|---------------------|
| Param | Flag | Units | ICVs True Conc. | ICVs Found Conc. | ICVs Percent Recovery | Percent Recovery Limits | Date Analyzed |
| Ammonia-N | | mg/L | 5.00 | 4.98 | 100 | 85 - 115 | 2006-12-11 |
| Standard (CCV-1) | | | | | | | |
| QC Batch: 32703 | | | Date Analyz | zed: 2006-12-1 | 1 | Ana | lyzed By: SM |
| | | | CCVs True | CCVs Found | CCVs Percent | Percent Recovery | Date |
| Param | Flag | Units | Conc. | Conc. | Recovery | Limits | Analyzed |
| Ammonia-N | | mg/L | 5.00 | 4.76 | 95 | 85 - 115 | 2006-12-11 |
| Standard (ICV-1) | | | | | | | |
| QC Batch: 32745 | | | Date Analyz | zed: 2006-12- | 12 | Ana | alyzed By: RR |
| | | | ICVs | ICVs | ICVs | Percent | |
| D. | T31 | * * * . | True | Found | Percent | Recovery | Date |
| Param Total Copper | Flag | Units mg/L | Conc. 1.00 | Conc. 0.979 | Recovery 98 | Limits 90 - 110 | Analyzed 2006-12-12 |
| Standard (ICV-1) QC Batch: 32745 | | | Date Analy: | zed: 2006-12- | 12 | Ana | alyzed By: RR |
| | | | ICVs | ICVs | lCVs | Percent | |
| Param | Flag | Units | True Conc. | Found Conc. | Percent Recovery | Recovery Limits | Date Analyzed |
| Total Phosphorous | Triag | mg/L | 5.00 | 4.90 | 98 | 90 - 110 | 2006-12-12 |
| Standard (ICV-1) | | | | | | | |
| QC Batch: 32745 | | | Date Analy | zed: 2006-12- | 12 | Ana | alyzed By: RR |
| T O | 171 | 77. | ICVs True | ICVs Found | ICVs Percent | Percent Recovery | Date |
| Param Total Zinc | Flag | Units mg/L | Conc. 1.00 | Conc. 1.04 | Recovery 104 | Limits 90 - 110 | Analyzed 2006-12-12 |
| | | mgr.D | 1.00 | 1.01 | 101 | 70 110 | 2000 12 12 |
| Standard (ICV-1) QC Batch: 32745 | | | Date Analy | zed: 2006-12- | 12 | An | alyzed By: RR |
| 4 5 2 mon 5 2 m | | | ICVs | ICVs | ICVs | Percent | , , |
| | | | True | Found | Percent | Recovery | Date |
| Param | Flag | Units | Conc. | Conc. | Recovery | Limits | Analyzed |
| Total Silver | | mg/L | 0.125 | 0.126 | 101 | 90 - 110 | 2006-12-12 |
| Total Arsenic | | mg/L | 1.00 | 0.992 | 99 | 90 - 110 | 2006-12-12 |
| Total Rarium | | ma/I | 1.00 | 1.00 | 100 | 00 110 | 2006 12 13 |

1.00

mg/L

1.00

2006-12-12 *continued*...

100

90 - 110

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| standard continued | | | | | | | |
|--------------------|------|-------|-------|-------|----------|----------|------------|
| | | | ICVs | ICVs | ICVs | Percent | |
| | | | True | Found | Percent | Recovery | Date |
| Param | Flag | Units | Conc. | Conc. | Recovery | Limits | Analyzed |
| Total Cadmium | | mg/L | 1.00 | 0.991 | 99 | 90 - 110 | 2006-12-12 |
| Total Chromium | | mg/L | 1.00 | 0.995 | 100 | 90 - 110 | 2006-12-12 |
| Total Lead | | mg/L | 1.00 | 0.997 | 100 | 90 - 110 | 2006-12-12 |
| Total Selenium | | mg/L | 1.00 | 1.02 | 102 | 90 - 110 | 2006-12-12 |

Standard (CCV-1)

QC Batch: 32745

Date Analyzed: 2006-12-12

Analyzed By: RR

| | | | CCVs | CCVs | CCVs | Percent | |
|--------------|------|-------|-------|-------|----------|----------|------------|
| | | | True | Found | Percent | Recovery | Date |
| Param | Flag | Units | Conc. | Conc. | Recovery | Limits | Analyzed |
| Total Copper | | mg/L | 1.00 | 0.978 | 98 | 90 - 110 | 2006-12-12 |

Standard (CCV-1)

QC Batch: 32745

Date Analyzed: 2006-12-12

Analyzed By: RR

| | | | CCVs | CCVs | CCVs | Percent | |
|-------------------|------|-------|-------|-------|----------|----------|------------|
| | | | True | Found | Percent | Recovery | Date |
| Param | Flag | Units | Conc. | Conc. | Recovery | Limits | Analyzed |
| Total Phosphorous | | mg/L | 5.00 | 4.91 | 98 | 90 - 110 | 2006-12-12 |

Standard (CCV-1)

QC Batch: 32745

Date Analyzed: 2006-12-12

Analyzed By: RR

| | | | CCVs | CCVs | CCVs | Percent | |
|------------|-------|------------|-------|-------|----------|----------|------------|
| D | F11 . | 1 1 | True | Found | Percent | Recovery | Date |
| Param | Flag | Units | Conc. | Conc. | Recovery | Limits | Analyzed |
| Total Zinc | | mg/L | 1.00 | 1.04 | 104 | 90 - 110 | 2006-12-12 |

Standard (CCV-1)

QC Batch: 32745

Date Analyzed: 2006-12-12

Analyzed By: RR

| | | | CCVs | CCVs | CCVs | Percent | |
|----------------|------|-------|-------|-------|----------|----------|------------|
| | | | True | Found | Percent | Recovery | Date |
| Param | Flag | Units | Conc. | Conc. | Recovery | Limits | Analyzed |
| Total Silver | | mg/L | 0.125 | 0.127 | 102 | 90 - 110 | 2006-12-12 |
| Total Arsenic | | mg/L | 1.00 | 0.987 | 99 | 90 - 110 | 2006-12-12 |
| Total Barium | | mg/L | 1.00 | 1.01 | 101 | 90 - 110 | 2006-12-12 |
| Total Cadmium | | mg/L | 1.00 | 0.988 | 99 | 90 - 110 | 2006-12-12 |
| Total Chromium | | mg/L | 1.00 | 0.990 | 99 | 90 - 110 | 2006-12-12 |
| Total Lead | | mg/L | 1.00 | 0.993 | 99 | 90 - 110 | 2006-12-12 |
| Total Selenium | | mg/L | 1.00 | 1.02 | 102 | 90 - 110 | 2006-12-12 |

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Standard (CCV-1)

QC Batch: 32815

Date Analyzed: 2006-12-12

Analyzed By: JG

| | | | CCVs | CCVs | CCVs | Percent | |
|---------------------|------|-----------------------------|-------|-------|----------|----------|------------|
| | | | True | Found | Percent | Recovery | Date |
| Param | Flag | Units | Conc. | Conc. | Recovery | Limits | Analyzed |
| Vinyl Chloride | | μg/L | 50.0 | 54.5 | 109 | 80 - 120 | 2006-12-12 |
| 1,1-Dichloroethene | | μ g/L | 50.0 | 52.7 | 105 | 80 ~ 120 | 2006-12-12 |
| Chloroform | | μ g/L | 50.0 | 51.1 | 102 | 80 - 120 | 2006-12-12 |
| 1,2-Dichloropropane | | $\mu \mathrm{g}/\mathrm{L}$ | 50.0 | 52.1 | 104 | 80 - 120 | 2006-12-12 |
| Toluene | | μ g/L | 50.0 | 49.4 | 99 | 80 - 120 | 2006-12-12 |
| Chlorobenzene | | μ g/L | 50.0 | 51.1 | 102 | 80 - 120 | 2006-12-12 |
| Ethylbenzene | | μg/L | 50.0 | 52.7 | 105 | 80 - 120 | 2006-12-12 |

Standard (CCV-2)

QC Batch: 32815

Date Analyzed: 2006-12-12

Analyzed By: JG

| | | | CCVs True | CCVs Found | CCVs Percent | Percent Recovery | Date |
|---------------------|------|-----------------------------|--------------|---------------|-----------------|---------------------|------------|
| Param | Flag | Units | Conc. | Conc. | Recovery | Limits | Analyzed |
| Vinyl Chloride | | μg/L | 50.0 | 48.1 | 96 | 80 - 120 | 2006-12-12 |
| 1,1-Dichloroethene | | μ g/L | 50.0 | 49.5 | 99 | 80 - 120 | 2006-12-12 |
| Chloroform | | μ g/L | 50.0 | 48.0 | 96 | 80 - 120 | 2006-12-12 |
| 1,2-Dichloropropane | | μg/L | 50.0 | 48.6 | 97 | 80 - 120 | 2006-12-12 |
| Toluene | | μg/L | 50.0 | 46.7 | 93 | 80 - 120 | 2006-12-12 |
| Chlorobenzene | | $\mu { m g/L}$ | 50.0 | 48.8 | 98 | 80 - 120 | 2006-12-12 |
| Ethylbenzene | | $\mu \mathrm{g}/\mathrm{L}$ | 50.0 | 50.2 | 100 | 80 - 120 | 2006-12-12 |

Standard (ICV-1)

QC Batch: 32825

Date Analyzed: 2006-12-14

Analyzed By: RR

| | | | ICVs | ICVs | ICVs | Percent | |
|--------------|------|-------|-------|-------|----------|----------|------------|
| | | | True | Found | Percent | Recovery | Date |
| Param | Flag | Units | Conc. | Conc. | Recovery | Limits | Analyzed |
| Total Sodium | | mg/L | 50.0 | 51.5 | 103 | 90 - 110 | 2006-12-14 |

Standard (CCV-1)

QC Batch: 32825

Date Analyzed: 2006-12-14

Analyzed By: RR

| | | | CCVs | CCVs | CCVs | Percent | |
|--------------|------|-------|-------|-------|----------|----------|------------|
| | | | True | Found | Percent | Recovery | Date |
| Param | Flag | Units | Conc. | Conc. | Recovery | Limits | Analyzed |
| Total Sodium | | mg/L | 50.0 | 48.9 | 98 | 90 - 110 | 2006-12-14 |

Standard (CCV-1)

QC Batch: 32862

Date Analyzed: 2006-12-15

Analyzed By: TS

Param

Total Dissolved Solids

Flag

Units

mg/L

Conc.

1000

Conc.

995

Recovery

100

Limits

94.4 - 106

Analyzed

2006-12-13

Work Order: 6121108 **HELSTF** Groundwater Samples

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| | | | | | | | ······································ |
|-----------------------------------|---------|---------------|-----------------------|------------------------|-----------------------------|-------------------------------|--|
| Param | Flag | Units | CCVs True Conc. | CCVs Found Conc. | CCVs Percent Recovery | Percent Recovery Limits | Date Analyzed |
| Total Mercury | | mg/L | 0.00100 | 0.00101 | 101 | 80 - 120 | 2006-12-15 |
| Standard (CCV-2) | | | | | | | |
| QC Batch: 32862 | | | Date Analyzed: | 2006-12-15 | | Ana | lyzed By: TS |
| Param | Flag | Units | CCVs True Conc. | CCVs Found Conc. | CCVs Percent Recovery | Percent Recovery Limits | Date Analyzed |
| Total Mercury | 1 11116 | mg/L | | 0.00102 | 102 | 80 - 120 | 2006-12-15 |
| | | <u>V</u> | | | | | |
| Standard (ICV-1) | | | | | | | |
| QC Batch: 32864 | | | Date Analyzed: | 2006-12-15 | | Ana | alyzed By: TS |
| | | | ICVs True | ICVs Found | ICVs Percent | Percent Recovery | Date |
| Param | Flag | Units | Conc. | Conc. | Recovery | Limits | Analyzed |
| Dissolved Mercury | | mg/L | 0.00100 | 0.00106 | 106 | 80 - 120 | 2006-12-15 |
| Standard (CCV-1) QC Batch: 32864 | | | Date Analyzed: | 2006-12-15 | | Ana | alyzed By: TS |
| | | | CCVs | CCVs | CCVs | Percent | - |
| Param | Flag | Units | True Conc. | Found | Percent | Recovery | Date |
| Dissolved Mercury | riag | mg/L | 0.00100 | Conc. 0.00101 | Recovery 101 | Limits 80 - 120 | Analyzed 2006-12-15 |
| Standard (ICV-1) QC Batch: 32873 | | | Date Analyzed; | | | | lyzed By: DR |
| | | | ICVs | ICVs | ICVs | Percent | |
| Daram | E1 | I Inde | True | Found | Percent | Recovery | Date |
| Param Total Dissolved Solids | Flag | Units mg/L | Conc. 1000 | Conc. 967 | Recovery 97 | Limits 94.4 - 106 | Analyzed 2006-12-13 |
| Standard (CCV-1) | | | | | | | |
| QC Batch: 32873 | | | Date Analyzed: | 2006-12-13 | | Ana | lyzed By: DR |
| Daram | m. | Linita | CCVs True | CCVs Found | CCVs Percent | Percent Recovery | Date |

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Standard (ICV-1)

QC Batch: 32902

Date Analyzed: 2006-12-08

Analyzed By: DR

| | | | ICVs | ICVs | ICVs | Percent | |
|-------|------|-------|-------|-------|----------|------------|------------|
| | | | True | Found | Percent | Recovery | Date |
| Param | Flag | Units | Conc. | Conc. | Recovery | Limits | Analyzed |
| рН | | s.u. | 7.00 | 6.94 | 99 | 98.8 - 101 | 2006-12-08 |

Standard (CCV-1)

QC Batch: 32902

Date Analyzed: 2006-12-08

Analyzed By: DR

| | | | CCVs | CCVs | CCVs | Percent | |
|-------|------|-------|-------|-------|----------|------------|------------|
| | | | True | Found | Percent | Recovery | Date |
| Param | Flag | Units | Conc. | Conc. | Recovery | Limits | Analyzed |
| pН | | s.u. | 7.00 | 6.99 | 100 | 98.8 - 101 | 2006-12-08 |

Standard (ICV-1)

QC Batch: 32918

Date Analyzed: 2006-12-15

Analyzed By: JG

| Param | Flag | Units | ICVs True Conc. | ICVs Found Conc. | ICVs Percent Recovery | Percent Recovery Limits | Date Analyzed |
|------------------------|------|---------------|-----------------------|------------------------|-----------------------------|-------------------------------|------------------|
| Hydroxide Alkalinity | | mg/L as CaCo3 | 0.00 | <1.00 | | 0 - 105 | 2006-12-15 |
| Carbonate Alkalinity | | mg/L as CaCo3 | 0.00 | 240 | | 0 - 105 | 2006-12-15 |
| Bicarbonate Alkalinity | | mg/L as CaCo3 | 0.00 | 10.0 | | 0 - 105 | 2006-12-15 |
| Total Alkalinity | | mg/L as CaCo3 | 250 | 250 | 100 | 93.7 - 99.9 | 2006-12-15 |

Standard (CCV-1)

QC Batch: 32918

Date Analyzed: 2006-12-15

Analyzed By: JG

| Davam | Elec | Thite | CCVs True | CCVs Found | CCVs Percent | Percent Recovery | Date |
|------------------------|------|---------------|--------------|---------------|-----------------|---------------------|------------|
| Param | Flag | Units | Conc. | Conc. | Recovery | Limits | Analyzed |
| Hydroxide Alkalinity | | mg/L as CaCo3 | 0.00 | < 1.00 | | 0 - 105 | 2006-12-15 |
| Carbonate Alkalinity | | mg/L as CaCo3 | 0.00 | 228 | | 0 - 105 | 2006-12-15 |
| Bicarbonate Alkalinity | | mg/L as CaCo3 | 0.00 | 20.0 | | 0 - 105 | 2006-12-15 |
| Total Alkalinity | | mg/L as CaCo3 | 250 | 248 | 99 | 93.7 - 99.9 | 2006-12-15 |

Standard (ICV-1)

QC Batch: 32921

Date Analyzed: 2006-12-18

Analyzed By: RR

| | | | 1CVs | ICVs | ICVs | Percent | |
|------------------|------|-------|-------|-------|----------|----------|------------|
| | | | True | Found | Percent | Recovery | Date |
| Param | Flag | Units | Conc. | Conc. | Recovery | Limits | Analyzed |
| Dissolved Silver | | mg/L | 0.125 | 0.128 | 102 | 90 - 110 | 2006-12-18 |

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| Standard (I | CV-1) |
|-------------|-------|
|-------------|-------|

QC Batch: 32921

Date Analyzed: 2006-12-18

Analyzed By: RR

| | | | ICVs | ICVs | ICVs | Percent | |
|-------------------|------|-------|-------|-------|----------|----------|------------|
| | | | True | Found | Percent | Recovery | Date |
| Param | Flag | Units | Conc. | Conc. | Recovery | Limits | Analyzed |
| Dissolved Arsenic | | mg/L | 1.00 | 0.987 | 99 | 90 - 110 | 2006-12-18 |

Standard (ICV-1)

QC Batch: 32921

Date Analyzed: 2006-12-18

Analyzed By: RR

| | | | ICVs | ICVs | ICVs | Percent | |
|------------------|------|-------|-------|-------|----------|----------|------------|
| | | | True | Found | Percent | Recovery | Date |
| Param | Flag | Units | Conc. | Conc. | Recovery | Limits | Analyzed |
| Dissolved Barium | | mg/L | 1.00 | 0.996 | 100 | 90 - 110 | 2006-12-18 |

Standard (ICV-1)

QC Batch: 32921

Date Analyzed: 2006-12-18

Analyzed By: RR

| | | | ICVs | ICVs | ICVs | Percent | |
|-------------------|------|-------|-------------|-------------|----------|----------|------------|
| | | | True | Found | Percent | Recovery | Date |
| Param | Flag | Units | Conc. | Conc. | Recovery | Limits | Analyzed |
| Dissolved Cadmium | | mg/L | 1.00 | 0.985 | 98 | 95 - 105 | 2006-12-18 |

Standard (ICV-1)

QC Batch: 32921

Date Analyzed: 2006-12-18

Analyzed By: RR

| | | | ICVs | ICVs | ICVs | Percent | |
|--------------------|------|-------|-------|-------|-------------|----------|------------|
| | | | True | Found | Percent | Recovery | Date |
| Param | Flag | Units | Conc. | Conc. | Recovery | Limits | Analyzed |
| Dissolved Chromium | | mg/L | 1.00 | 0.982 | 98 | 90 - 110 | 2006-12-18 |

Standard (ICV-1)

QC Batch: 32921

Date Analyzed: 2006-12-18

Analyzed By: RR

| | | | ICVs True | ICVs | ICVs Percent | Percent | Date |
|------------------|------|-------|--------------|----------------|-----------------|--------------------|------------|
| Param | Flag | Units | Conc. | Found Conc. | Recovery | Recovery Limits | Analyzed |
| Dissolved Copper | | mg/L | 1.00 | 0.998 | 100 | 90 - 110 | 2006-12-18 |

Standard (ICV-1)

QC Batch: 32921

Date Analyzed: 2006-12-18

Analyzed By: RR

| Work Order: 6121108 | Page Number: 40 of 43 |
|----------------------------|-----------------------|
| HELSTF Groundwater Samples | |

| | | | TIEE311 GIO | | | | |
|---|--------------|---------------|---|--|------------------------------------|--|---|
| Param | Flag | Units | ICVs True Conc. | ICVs Found Conc. | ICVs Percent Recovery | Percent Recovery Limits | Date Analyzed |
| Dissolved Lead | | mg/L | 1.00 | 0.986 | 99 | 90 - 110 | 2006-12-18 |
| Standard (ICV-1) | | | | | | | |
| QC Batch: 32921 | | | Date Analyzed: | 2006-12-18 | | Ana | lyzed By: RR |
| | | | ICVs | ICVs | ICVs | Percent | |
| | | | True | Found | Percent | Recovery | Date |
| Param | Flag | Units | Conc. | Conc. | Recovery | Limits | Analyzed |
| Dissolved Selenium | | mg/L | 1.00 | 1.06 | 106 | 90 - 110 | 2006-12-18 |
| Standard (ICV-1) | | | | | | | |
| QC Batch: 32921 | | | Date Analyzed: | 2006-12-18 | | Ana | lyzed By: RR |
| | | | ICVs | ICVs | ICVs | Percent | |
| | | | True | Found | Percent | Recovery | Date |
| Param | Flag | Units | Conc. | Conc. | Recovery | Limits | Analyzed |
| Dissolved Zinc | | mg/L | 1.00 | 1.04 | 104 | 90 - 110 | 2006-12-18 |
| Standard (CCV-1) QC Batch: 32921 | | | Date Analyzed: | 2006-12-18 | | Ana | lyzed By: RR |
| | | | CCVs | CCVs | CCVs | Percent | |
| | | | 200 | | _ | | |
| | | | True | Found | Percent | Recovery | Date |
| Param | Flag | Units | True Conc. | Found Conc. | Percent Recovery | Recovery Limits | Date Analyzed |
| | Flag | Units mg/L | | | | | |
| Dissolved Silver | Flag | | Conc. | Conc. | Recovery | Limits | Analyzed |
| Dissolved Silver Standard (CCV-I) | Flag | | Conc. | Conc. | Recovery | Limits 90 - 110 | Analyzed |
| Dissolved Silver Standard (CCV-I) | Flag | | Conc. 0.125 | Conc. 0.129 | Recovery | Limits 90 - 110 | Analyzed 2006-12-18 |
| Dissolved Silver Standard (CCV-I) | Flag | | Conc. 0.125 Date Analyzed: | Conc. 0.129 2006-12-18 | Recovery 103 | Limits 90 - 110 Ana | Analyzed 2006-12-18 |
| Dissolved Silver Standard (CCV-I) QC Batch: 32921 Param | Flag Flag | mg/L Units | Conc. 0.125 Date Analyzed: CCVs True Conc. | Conc. 0.129 2006-12-18 CCVs Found Conc. | Recovery 103 CCVs | Limits 90 - 110 Ana Percent Recovery Limits | Analyzed 2006-12-18 lyzed By: RR Date Analyzed |
| Dissolved Silver Standard (CCV-1) QC Batch: 32921 | | mg/L | Conc. 0.125 Date Analyzed: CCVs True | Conc. 0.129 2006-12-18 CCVs Found | Recovery 103 CCVs Percent | Limits 90 - 110 Ana Percent Recovery | Analyzed 2006-12-18 lyzed By: RR Date |
| Dissolved Silver Standard (CCV-1) QC Batch: 32921 Param Dissolved Arsenic | | mg/L Units | Conc. 0.125 Date Analyzed: CCVs True Conc. | Conc. 0.129 2006-12-18 CCVs Found Conc. | CCVs Percent Recovery | Limits 90 - 110 Ana Percent Recovery Limits | Analyzed 2006-12-18 lyzed By: RR Date Analyzed |
| Param Dissolved Silver Standard (CCV-1) QC Batch: 32921 Param Dissolved Arsenic Standard (CCV-1) QC Batch: 32921 | | mg/L Units | Conc. 0.125 Date Analyzed: CCVs True Conc. | Conc. 0.129 2006-12-18 CCVs Found Conc. 1.04 | CCVs Percent Recovery | Limits 90 - 110 Ana Percent Recovery Limits 90 - 110 | Analyzed 2006-12-18 lyzed By: RR Date Analyzed |
| Dissolved Silver Standard (CCV-1) QC Batch: 32921 Param Dissolved Arsenic Standard (CCV-1) | | mg/L Units | Conc. 0.125 Date Analyzed: CCVs True Conc. 1.00 | Conc. 0.129 2006-12-18 CCVs Found Conc. 1.04 | CCVs Percent Recovery 104 | Limits 90 - 110 Ana Percent Recovery Limits 90 - 110 | Analyzed 2006-12-18 lyzed By: RR Date Analyzed 2006-12-18 |
| Dissolved Silver Standard (CCV-1) QC Batch: 32921 Param Dissolved Arsenic Standard (CCV-1) | | mg/L Units | Conc. 0.125 Date Analyzed: CCVs True Conc. 1.00 | Conc. 0.129 2006-12-18 CCVs Found Conc. 1.04 | CCVs Percent Recovery | Limits 90 - 110 Ana Percent Recovery Limits 90 - 110 Ana Percent | Analyzed 2006-12-18 lyzed By: RR Date Analyzed 2006-12-18 |
| Dissolved Silver Standard (CCV-1) QC Batch: 32921 Param Dissolved Arsenic Standard (CCV-1) | | mg/L Units | Conc. 0.125 Date Analyzed: CCVs True Conc. 1.00 Date Analyzed: CCVs | Conc. 0.129 2006-12-18 CCVs Found Conc. 1.04 2006-12-18 CCVs | CCVs Percent Recovery 104 CCVs | Limits 90 - 110 Ana Percent Recovery Limits 90 - 110 | Analyzed 2006-12-18 lyzed By: RR Date Analyzed 2006-12-18 |

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Standard (CCV-1)

QC Batch: 32921

Date Analyzed: 2006-12-18

Analyzed By: RR

| | | | CCVs | CCVs | CCVs | Percent | |
|-------------------|------|-------|-------|-------|----------|----------|------------|
| | | | True | Found | Percent | Recovery | Date |
| Param | Flag | Units | Conc. | Conc. | Recovery | Limits | Analyzed |
| Dissolved Cadmium | | mg/L | 1.00 | 0.991 | 99 | 90 - 110 | 2006-12-18 |

Standard (CCV-1)

QC Batch: 32921

Date Analyzed: 2006-12-18

Analyzed By: RR

| n | EV. | | CCVs True | CCVs Found | CCVs Percent | Percent Recovery | Date |
|--------------------|------|-------|--------------|---------------|-----------------|---------------------|------------|
| Param | Flag | Units | Conc. | Conc. | Recovery | Limits | Analyzed |
| Dissolved Chromium | | mg/L | 1.00 | 0.983 | 98 | 90 - 110 | 2006-12-18 |

Standard (CCV-1)

QC Batch: 32921

Date Analyzed: 2006-12-18

Analyzed By: RR

| | | | CCVs True | CCVs Found | CCVs | Percent Recovery | Data |
|------------------|------|-------|--------------|---------------|---------------------|---------------------|------------------|
| Param | Flag | Units | Conc. | Conc. | Percent Recovery | Limits | Date Analyzed |
| Dissolved Copper | | mg/L | 1.00 | 1.01 | 101 | 90 - 110 | 2006-12-18 |

Standard (CCV-1)

QC Batch: 32921

Date Analyzed: 2006-12-18

Analyzed By: RR

| | | | CCVs | CCVs | CCVs | Percent | |
|----------------|------|-------|-------|-------|----------|----------|------------|
| | | | True | Found | Percent | Recovery | Date |
| Param | Flag | Units | Conc. | Conc. | Recovery | Limits | Analyzed |
| Dissolved Lead | | mg/L | 1.00 | 0.983 | 98 | 90 - 110 | 2006-12-18 |

Standard (CCV-1)

QC Batch: 32921

Date Analyzed: 2006-12-18

Analyzed By: RR

| | | | CCVs | CCVs | CCVs | Percent | |
|--------------------|------|-------|-------|-------|----------|----------|------------|
| | | | True | Found | Percent | Recovery | Date |
| Param | Flag | Units | Cone, | Conc. | Recovery | Limits | Analyzed |
| Dissolved Selenium | | mg/L | 1.00 | 1.02 | 102 | 90 - 110 | 2006-12-18 |

Standard (CCV-1)

QC Batch: 32921

Date Analyzed: 2006-12-18

Analyzed By: RR

HELSTF Groundwater Samples

| Work Order: 6121108 | Page Number: 42 of 43 |
|---------------------------------|-----------------------|
| HEL OTE Cusua divistar Campalas | |

| | | | | | | * | | |
|--------------|---------|---------|----------|-----------------------|------------------------|-----------------------------|-------------------------------|------------------|
| Param | | Flag | Units | CCVs True Conc. | CCVs Found Conc. | CCVs Percent Recovery | Percent Recovery Limits | Date Analyzed |
| Dissolved Zi | | | mg/L | 1.00 | 1.05 | 105 | 90 - 110 | 2006-12-18 |
| | | | | | | | | |
| Standard (I | CV-1) | | | | | | | |
| QC Batch: | 32942 | | | Date Analyz | zed: 2006-12- | 19 | Ana | ılyzed By: RR |
| | | | | ICVs | ICVs | ICVs | Percent | |
| | | | | True | Found | Percent | Recovery | Date |
| Param | | Flag | Units | Conc. | Conc. | Recovery | Limits | Analyzed |
| Dissolved So | odium | | mg/L | 50.0 | 52.5 | 105 | 90 - 110 | 2006-12-19 |
| Standard (C | CCV-1) | | | | | | | |
| QC Batch: | 32942 | | | Date Analyz | zed: 2006-12- | 19 | Ana | alyzed By: RR |
| | | | | CCVs | CCVs | CCVs | Percent | |
| | | | | True | Found | Percent | Recovery | Date |
| Param | | Flag | Units | Conc. | Conc. | Recovery | Limits | Analyzed |
| Dissolved Se | odium | <u></u> | mg/L | 50.0 | 46.9 | 94 | 90 - 110 | 2006-12-19 |
| QC Batch: | 33039 . | | | Date Analy | zed: 2006-12 | -08 | An | alyzed By: JR |
| | | | | ICVs | ICVs | ICVs | Percent | |
| | | | | True | Found | Percent | Recovery | Date |
| Param | Flag | | Units | Conc. | Conc. | Recovery | Limits | Analyzed |
| Bromide | | | mg/L | 2.50 | 2.46 | 98 | 93.2 - 98.5 | 2006-12-08 |
| Standard (l | ICV-1) | | | | | | | |
| QC Batch: | 33039 | | | Date Analy | zed: 2006-12 | -08 | Ar | nalyzed By: JR |
| | | | | ICVs | ICVs | lCVs | Percent | |
| | | | | True | Found | Percent | Recovery | Date |
| Param | Flag | | Units | Conc. | Conc. | Recovery | Limits | Analyzed |
| Nitrite-N | , , | | mg/L | 2.50 | 2.45 | 98 | 90 - 110 | 2006-12-08 |
| Standard (| ICV-1) | | | | | | | |
| QC Batch: | • | | | Date Analy | /zed: 2006-12 | -08 | Aı | nalyzed By: JR |
| ` | | | | | | | | - " |
| | | | | ICVs | ICVs . | ICVs | Percent | |
| Ď | 171 | | T.T. 14. | True | Found | Percent | Recovery | Date |
| Param | Flag | | Units | Conc. | Conc. | Recovery | Limits | Analyzed |
| Nitrate-N | | | mg/L | 2.50 | 2.37 | 95 | 90 - 110 | 2006-12-08 |

| Standard | (ICV-1) |
|-------------|------------------|
| CHAIRMAN CE | 110 7 "17 |

| OC | Batch: | 33039 |
|----|--------|-------|
| | | |

Date Analyzed: 2006-12-08

Analyzed By: JR

| | | | ICVs | ICVs | ICVs | Percent | |
|----------|------|-------|-------------|-------------|----------|----------|------------|
| | | | True | Found | Percent | Recovery | Date |
| Param | Flag | Units | Conc. | Conc. | Recovery | Limits | Analyzed |
| Chloride | | mg/L | 12.5 | 11.9 | 95 | 90 - 110 | 2006-12-08 |
| Fluoride | | mg/L | 2.50 | 2.47 | 99 | 90 - 110 | 2006-12-08 |
| Sulfate | | mg/L | 12.5 | 11.9 | 95 | 90 - 110 | 2006-12-08 |

Standard (CCV-1)

QC Batch: 33039

Date Analyzed: 2006-12-08

Analyzed By: JR

| | | | CCVs | CCVs | CCVs | Percent | |
|---------|------|-------|-------|-------|----------|-------------|------------|
| | | | True | Found | Percent | Recovery | Date |
| Param | Flag | Units | Conc. | Conc. | Recovery | Limits | Analyzed |
| Bromide | 3 | mg/L | 2.50 | 2.47 | 99 | 93.2 - 98.5 | 2006-12-08 |

Standard (CCV-1)

QC Batch: 33039

Date Analyzed: 2006-12-08

Analyzed By: JR

| | | | CCVs | CCVs | CCVs | Percent | |
|-----------|------|-------|-------|-------|----------|----------|------------|
| | | | True | Found | Percent | Recovery | Date |
| Param | Flag | Units | Conc. | Conc. | Recovery | Limits | Analyzed |
| Nitrite-N | | mg/L | 2.50 | 2.47 | 99 | 90 - 110 | 2006-12-08 |

Standard (CCV-1)

QC Batch: 33039

Date Analyzed: 2006-12-08

Analyzed By: JR

| | | | CCVs | CCVs | CCVs | Percent | |
|-----------|------|-------|-------|-------|----------|----------|------------|
| | | | True | Found | Percent | Recovery | Date |
| Param | Flag | Units | Conc. | Conc. | Recovery | Limits | Analyzed |
| Nitrate-N | | mg/L | 2.50 | 2.39 | 96 | 90 - 110 | 2006-12-08 |

Standard (CCV-1)

QC Batch: 33039

Date Analyzed: 2006-12-08

Analyzed By: JR

| D | 171 | 11. % | CCVs True | CCVs Found | CCVs Percent | Percent Recovery | Date |
|----------|------|-------|--------------|---------------|-----------------|---------------------|------------|
| Param | Flag | Units | Conc. | Conc. | Recovery | Limits | Analyzed |
| Chloride | | mg/L | 12.5 | 12.0 | 96 | 90 - 110 | 2006-12-08 |
| Fluoride | | mg/L | 2.50 | 2.49 | 100 | 90 - 110 | 2006-12-08 |
| Sulfate | | mg/L | 12.5 | 12.0 | 96 | 90 - 110 | 2006-12-08 |

³SPECIAL